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          100          105          110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
          115          120          125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
          130          135          140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
145          150          155          160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
          165          170          175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
          180          185          190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
          195          200          205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
210          215          220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
225          230          235          240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
          245          250          255
Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Tyr
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Phe Asn Glu Gln
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<210> 3451

<211> 595

<212> DNA

<213> Homo sapiens

<400> 3451

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<210> 3452

<211> 192

<212> PRT

<213> Homo sapiens

<400> 3452

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 1           5           10           15
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 20           25           30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Leu Gly Lys Thr Leu
 35           40           45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
 50           55           60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
 65           70           75           80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
 85           90           95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
100           105           110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
115           120           125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
130           135           140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145           150           155           160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
165           170           175
Ser Ser Pro Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
180           185           190

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<210> 3453

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3453

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<210> 3454

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3454

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          20           25           30
Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly
          35           40           45
Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Ala Glu Glu Gln Ile
          50           55           60
Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu
65          70          75          80
Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val
          85          90          95
Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys
          100         105         110
Phe Arg Pro Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu
          115         120         125
Leu Leu Pro Asn Gly Leu Arg Glu Ser Ile Ser Lys Val Arg Ser Ser
          130         135         140
Val Ala Tyr Ala Val Ser Ala Ile Ala His Trp Asp Trp Pro Glu
145          150          155

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<210> 3455

<211> 4886

<212> DNA

<213> Homo sapiens

<400> 3455

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720

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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

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Lys	Lys	Gln	Arg	Arg	Arg	Gly	Arg	Lys	Glu	Gly	Glu	Glu	Asp	Gln	Asn
			20					25					30		
Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro
		35					40					45			
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met
		50				55					60				
Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr
65				70					75					80	
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg
				85				90					95		
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly
			100				105						110		
Val	Ile	Phe	Pro	Gln											

115

<210> 3457
 <211> 646
 <212> DNA
 <213> Homo sapiens

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<210> 3458
 <211> 61
 <212> PRT
 <213> Homo sapiens

<400> 3458
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 35 40 45
 Leu Cys Xaa Cys Thr Cys Thr Gln Ala Xaa Ala Gly Lys
 50 55 60

<210> 3459
 <211> 592
 <212> DNA
 <213> Homo sapiens

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 480
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<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

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Ser	Gly	Pro	Ala	Arg	Ile	Pro	Val	Leu	Pro	Cys	Ser	Pro	Gln	Leu	Pro
			20					25					30		
Gly	Pro	Ser	Leu	Cys	Ala	Ala	Ser	Val	Cys	Leu	Leu	Gln	Asn	Lys	His
			35				40					45			
His	Ala	Pro	Ser	Trp	Ala	Glu	Ala	Pro	Ala	Asp	Ser	Pro	Arg	Ala	Leu
	50				55					60					
Gln	Ala	Cys	Pro	Val	Leu	Cys	Gln	Ala	Gly	Pro	Gly	His	Val	Pro	Ala
65				70					75					80	
Pro	Gly	Ala	Gly	Leu	Gln	Arg	Gly	Gln	Trp	Ser	Ala	Leu	Lys	Thr	Val
			85					90					95		
Ile	Pro	Ala	Arg	Pro	Ala	Leu	Pro	Cys	Ser	Ala	Arg	Gly	Gln	Phe	Glu
			100					105					110		
Leu	Lys	Leu													
			115												

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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 120
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 180

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<210> 3462

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3462

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Leu	Leu	Gly	Gly	His	Trp	Leu	Arg	Ala	Gln	Gly	Tyr	Ala	Asn	Pro	Phe
				20				25					30		
Trp	Leu	Ala	Leu	Ala	Leu	Leu	Ile	Ala	Met	Thr	Leu	Tyr	Ala	Ala	Phe
				35				40				45			
Cys	Phe	Gly	Glu	Thr	Leu	Lys	Glu	Pro	Lys	Ser	Thr	Arg	Leu	Phe	Thr
				50				55				60			
Phe	Arg	His	His	Arg	Ser	Ile	Val	Gln	Leu	Tyr	Val	Ala	Pro	Ala	Pro
				65				70				75			80
Glu	Lys	Ser	Arg	Lys	His	Leu	Ala	Leu	Tyr	Ser	Leu	Ala	Ile	Phe	Val
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Val	Ile	Thr	Val	His											
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<210> 3463

<211> 1734

<212> DNA

<213> Homo sapiens

<400> 3463

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<210> 3464

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3464

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 Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Gln Phe Phe Val Val Met
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 Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly
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 Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val
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 Lys Thr Pro Val Gly Arg Gly Arg Ala Trp Leu Arg Leu Ala Leu Met
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<210> 3465

<211> 2904

<212> DNA

<213> Homo sapiens

<400> 3465

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<210> 3466

<211> 315

<212> PRT

<213> Homo sapiens

<400> 3466

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Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu
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Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ile Lys Arg
 65          70          75
Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr
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Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn
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Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala
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145          150          155
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165          170          175
Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala
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Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro
195          200          205
Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu
210          215          220
Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met
225          230          235
Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp
245          250          255
Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser
260          265          270
Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met
275          280          285
His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser
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<210> 3467

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3467

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180

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<210> 3468

<211> 88

<212> PRT

<213> Homo sapiens

<400> 3468

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			20					25					30		
Trp	Leu	Cys	Tyr	Thr	Ser	Cys	Tyr	Gln	Gln	Asn	Arg	Val	Ser	Leu	Gly
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Gln	Ser	Cys	Gly	Tyr	Thr	Ser	Val	Ser	Gln	Asp	Phe	Leu	Cys	Gln	Arg
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Ala	Val	Lys	Leu	Arg	Thr	Lys	Val	Ile	Lys	Ile	Gln	Leu	Tyr	Tyr	Trp
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<210> 3469

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<212> DNA

<213> Homo sapiens

<400> 3469

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<210> 3470

<211> 322

<212> PRT

<213> Homo sapiens

<400> 3470

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Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
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Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
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Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
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Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
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Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu
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      260          265          270
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Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile
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<210> 3471

<211> 2335

<212> DNA

<213> Homo sapiens

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<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

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			20						25				30		
Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
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Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
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Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
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Ser	Glu	Gln	Val	Leu	Leu	Cys	Ala	Ser	Ser	Gln	Thr	Ser	Ser	Ile	Val
			85						90					95	
Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
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Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
		115					120					125			
Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
	130					135					140				
Ala	Leu	Pro	Lys	Leu	Pro	Ile	Ser	Leu	Thr	Asn	Thr	Asp	Leu	Lys	Val
145				150						155				160	
Ala	Ser	Asp	Thr	Gln	Phe	Tyr	Pro	Gly	Leu	Gly	Leu	Ala	Leu	Ala	Phe
				165					170					175	
His	Asp	Gly	Ser	Val	His	Ile	Val	His	Arg	Leu	Ser	Leu	Gln	Thr	Met
		180						185					190		
Ala	Val	Phe	Tyr	Ser	Ser	Ala	Ala	Pro	Arg	Pro	Val	Asp	Glu	Pro	Ala
		195				200						205			
Met	Lys	Arg	Pro	Arg	Thr	Ala	Gly	Pro	Ala	Val	His	Leu	Lys	Ala	Met
	210					215					220				
Gln	Leu	Ser	Trp	Thr	Ser	Leu	Ala	Leu	Val	Gly	Ile	Asp	Ser	His	Gly

225					230					235					240
Lys	Leu	Ser	Val	Leu	Arg	Leu	Ser	Pro	Ser	Met	Gly	His	Pro	Leu	Glu
				245					250					255	
Val	Gly	Leu	Ala	Leu	Arg	His	Leu	Leu	Phe	Leu	Leu	Glu	Tyr	Cys	Met
			260					265					270		
Val	Thr	Gly	Tyr	Asp	Trp	Trp	Asp	Ile	Leu	Leu	His	Val	Gln	Pro	Ser
		275					280					285			
Met	Val	Gln	Ser	Leu	Val	Glu	Lys	Leu	His	Glu	Glu	Tyr	Thr	Arg	Gln
		290				295					300				
Thr	Ala	Ala	Leu	Gln	Gln	Val	Leu	Ser	Thr	Arg	Ile	Leu	Ala	Met	Lys
		305			310					315					320
Ala	Ser	Leu	Cys	Lys	Leu	Ser	Pro	Cys	Thr	Val	Thr	Arg	Val	Cys	Asp
			325						330					335	
Tyr	His	Thr	Lys	Leu	Phe	Leu	Ile	Ala	Ile	Ser	Ser	Thr	Leu	Lys	Ser
		340						345					350		
Leu	Leu	Arg	Pro	His	Phe	Leu	Asn	Thr	Pro	Asp	Lys	Ser	Pro	Gly	Asp
		355				360						365			
Arg	Leu	Thr	Glu	Ile	Cys	Thr	Lys	Ile	Thr	Asp	Val	Asp	Ile	Asp	Lys
		370				375					380				
Val	Met	Ile	Asn	Leu	Lys	Thr	Glu	Glu	Phe	Val	Leu	Asp	Met	Asn	Thr
		385			390				395						400
Leu	Gln	Ala	Leu	Gln	Gln	Leu	Leu	Gln	Trp	Val	Gly	Asp	Phe	Val	Leu
			405					410						415	
Tyr	Leu	Leu	Ala	Ser	Leu	Pro	Asn	Gln	Gly	Ser	Leu	Leu	Arg	Pro	Gly
		420						425					430		
His	Ser	Phe	Leu	Arg	Asp	Gly	Thr	Ser	Leu	Gly	Met	Leu	Arg	Glu	Leu
		435				440						445			
Met	Val	Val	Ile	Arg	Ile	Trp	Gly	Leu	Leu	Lys	Pro	Ser	Cys	Leu	Pro
		450			455						460				
Val	Tyr	Thr	Ala	Thr	Ser	Asp	Thr	Gln	Asp	Ser	Met	Ser	Leu	Leu	Phe
			470						475					480	
Arg	Leu	Leu	Thr	Lys	Leu	Trp	Ile	Cys	Cys	Arg	Asp	Glu	Gly	Pro	Ala
			485					490						495	
Ser	Glu	Pro	Asp	Glu	Ala	Leu	Val	Asp	Glu	Cys	Cys	Leu	Leu	Pro	Ser
		500						505				510			
Gln	Leu	Leu	Ile	Pro	Ser	Leu	Asp	Trp	Leu	Pro	Ala	Ser	Asp	Gly	Leu
		515				520						525			
Val	Ser	Arg	Leu	Gln	Pro	Lys	Gln	Pro	Leu	Arg	Leu	Gln	Phe	Gly	Arg
		530				535					540				
Ala	Pro	Thr	Leu	Pro	Gly	Ser	Ala	Ala	Thr	Leu	Gln	Leu	Asp	Gly	Leu
			550						555					560	
Ala	Arg	Ala	Pro	Gly	Gln	Pro	Lys	Ile	Asp	His	Leu	Arg	Arg	Leu	His
			565					570						575	
Leu	Gly	Ala	Cys	Pro	Thr	Glu	Glu	Cys	Lys	Ala	Cys	Thr	Arg	Cys	Gly

<210> 3473
<211> 1660

<212> DNA

<213> Homo sapiens

<400> 3473

taatgtgcc ccttagaagg acgtgtttct tggtttcaca cgtttgagtc tatgcaccag
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ctggattttc acaaaggggt ctgaaccttg gctgttggcg agggc aaagt gggcgtggcg
120
gcgccatgcc cgggcgcgac tgagtgcgcg cgggcgagaa tggcgatcac ccagttggaa
180
ccattaaacg agggttttct ttctagaate tctggtctgc tgctgtgcag atggacctgc
240
cggcactgct gtcagaagtg ctacgagtc agctgttgcc agtcaagtga ggatgaagtt
300
gaaattcttg gacctttccc tgctcagacc cctccctggc tgatggccag ccggagcagt
360
gacaaggatg gtgactctgt ccacacggcc agcgaagtcc cgtgacccc acggaccaat
420
tccccggatg gaagacgctc gtcctcagac acatccaagt ctacatacag cctgacgcgg
480
aggatttcga gtcttgagtc aagacgtccc agctctccac tcactcgatat taaacctatc
540
gagtttggcg ttctcagcgc caagaaggag cccatccaac cttcgggtgct cagacggacc
600
tataaccccg acgactatct caggaagttc gaaccccacc tgactccctc cgactccaac
660
agcgacgatg tggactctct gacagacgag gagatcctgt ccaagtacca gctgggcagt
720
ctgcacttca gcactcagta cgacctgctg cacaaccacc tcacgtgctg cgtgatcgag
780
gccaggggacc tgccacctcc catctccac gatggctcgc gccaggacat ggcgcactcc
840
aacccttacc tcaagatctg tctcctgcca gaccagaaga actcaaaaga gaccggggtc
900
aaacgcaaga ccagaagcc cgtgttttag gagcgctaca ccttcgagat ccccttctg
960
gaggcccaga ggaggacct gctcctgacc gtgggtgatt ttgataagtt ctcgccccac
1020
tgtgtcattg ggaagtctt tgtgcctttg tgtgaagttg acctgggtcaa gggcgggcac
1080
tggtggaagg cgctgattcc cagttctcag aatgaagtgg agctggggga gctgctctg
1140
tcactgaatt atctcccaag tgctggcaga ctgaatgttg atgtcattcg agccaagcaa
1200
cttcttcaga cagatgtgag ccaagggtta gacctcttg tgaataacca gctggtgcac
1260
ggactcaaac ttgtgaaac caagaagacg tccttcttaa ggggcacaat tgatcctttc
1320
tacaatgaat cttcagctt caaagttccc caagaagaac tggaaaatgc cagcctagt
1380
ttacagttt tcggccacaa catgaagagc agcaatgact tcactgggag gatcgtcatt
1440
ggccagtact cttcaggccc ctctgagacc aacctgga ggcgcatgct caacacgcac
1500

cgcacagccg tggagcagtg gcatagcctg aggtcccag ctgagtgtga ccgcgtgtct
 1560
 cctgcctccc tggaggtgac ctgagggctg cagggaaaggc agctttcatt tgtttaaaaa
 1620
 aaaaaagacg gaaaaaatg tgtcacatac tattacatcc
 1660

<210> 3474
 <211> 474
 <212> PRT
 <213> Homo sapiens

<400> 3474
 Met Ala Tyr Ile Gln Leu Glu Pro Leu Asn Glu Gly Phe Leu Ser Arg
 1 5 10 15
 Ile Ser Gly Leu Leu Cys Arg Trp Thr Cys Arg His Cys Cys Gln
 20 25 30
 Lys Cys Tyr Glu Ser Ser Cys Cys Gln Ser Ser Glu Asp Glu Val Glu
 35 40 45
 Ile Leu Gly Pro Phe Pro Ala Gln Thr Pro Pro Trp Leu Met Ala Ser
 50 55 60
 Arg Ser Ser Asp Lys Asp Gly Asp Ser Val His Thr Ala Ser Glu Val
 65 70 75 80
 Pro Leu Thr Pro Arg Thr Asn Ser Pro Asp Gly Arg Arg Ser Ser Ser
 85 90 95
 Asp Thr Ser Lys Ser Thr Tyr Ser Leu Thr Arg Arg Ile Ser Ser Leu
 100 105 110
 Glu Ser Arg Arg Pro Ser Ser Pro Leu Ile Asp Ile Lys Pro Ile Glu
 115 120 125
 Phe Gly Val Leu Ser Ala Lys Lys Glu Pro Ile Gln Pro Ser Val Leu
 130 135 140
 Arg Arg Thr Tyr Asn Pro Asp Asp Tyr Phe Arg Lys Phe Glu Pro His
 145 150 155 160
 Leu Tyr Ser Leu Asp Ser Asn Ser Asp Asp Val Asp Ser Leu Thr Asp
 165 170 175
 Glu Glu Ile Leu Ser Lys Tyr Gln Leu Gly Met Leu His Phe Ser Thr
 180 185 190
 Gln Tyr Asp Leu Leu His Asn His Leu Thr Val Arg Val Ile Glu Ala
 195 200 205
 Arg Asp Leu Pro Pro Pro Ile Ser His Asp Gly Ser Arg Gln Asp Met
 210 215 220
 Ala His Ser Asn Pro Tyr Val Lys Ile Cys Leu Leu Pro Asp Gln Lys
 225 230 235 240
 Asn Ser Lys Gln Thr Gly Val Lys Arg Lys Thr Gln Lys Pro Val Phe
 245 250 255
 Glu Glu Arg Tyr Thr Phe Glu Ile Pro Phe Leu Glu Ala Gln Arg Arg
 260 265 270
 Thr Leu Leu Leu Thr Val Val Asp Phe Asp Lys Phe Ser Arg His Cys
 275 280 285
 Val Ile Gly Lys Val Ser Val Pro Leu Cys Glu Val Asp Leu Val Lys
 290 295 300
 Gly Gly His Trp Trp Lys Ala Leu Ile Pro Ser Ser Gln Asn Glu Val
 305 310 315 320
 Glu Leu Gly Glu Leu Leu Leu Ser Leu Asn Tyr Leu Pro Ser Ala Gly

```

          325          330          335
Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp
          340          345          350
Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly
          355          360          365
Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr Ile
          370          375          380
Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu Glu
          385          390          395          400
Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met Lys
          405          410          415
Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser Ser
          420          425          430
Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His Arg
          435          440          445
Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys Asp
          450          455          460
Arg Val Ser Pro Ala Ser Leu Glu Val Thr
          465          470

```

<210> 3475

<211> 514

<212> DNA

<213> Homo sapiens

<400> 3475

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acgcgtctgg agggctggtt cttctgcacg cccgccgcga agctgctctg gctgggtgctg
60
cagcccttct tctactcact acggccgcctc tgcgtccacc ccaaggccgt gacccgcgatg
120
gagggtgctca acacgctggt gcagctggcg gccgacctgg ccatctttgc cctttggggg
180
ctcaagcccg tgggtctacct gctggccagc tccttctctg gcctgggctc gcaccccatc
240
tcggggccact tcgtggccga gcactacatg ttcctcaagg gccacgagac ctactcctac
300
tatggggctc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgacttc
360
cccagcatcc cgggctacaa cctgccgctg gtgcggaaga tcgcgcccga gtactacgac
420
cacctgccgc agcaccactc ctgggtgaag gtgctctggg attttgtgtt tgaggactcc
480
ctggggccct atgccagggt gaagcgggtg taca
514

```

<210> 3476

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3476

```

Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu
1          5          10          15
Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

```

```

                20                25                30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
      35                40                45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
      50                55                60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
      65                70                75                80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
      85                90                95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
      100                105                110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
      115                120                125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
      130                135                140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
      145                150                155                160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
      165                170

```

<210> 3477

<211> 356

<212> DNA

<213> Homo sapiens

<400> 3477

```

gcgcgctctg gctgcctgcc cggcggtctc cgggtctctg tccagaccgg ccaccggagc
60
ttgacctctc gcatcgacc ttcctatgga cttaatgaag agcagaaga atttcaaaaa
120
gtggcctttg accttgctgc cggagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcgctt ttcttgctgc tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgctctcc gataatgtaa ttgttaaatg tctctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttctc agaaggcatc ctgatcatct tgtaca
356

```

<210> 3478

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3478

```

Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
1      5      10      15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
      20      25      30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
      35      40      45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
      50      55      60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

```

65          70          75          80
Phe Leu Leu Phe Ile Lys Ser His Gly Arg Val Asp Ala Gly Gly Gln
      85          90          95
Ala Pro Val Ala Gly Leu Asp Glu Asp Pro Glu Thr Ala Gly Gln Ala
      100          105          110
Ala Glu Ala Arg
      115

```

```

<210> 3479
<211> 797
<212> DNA
<213> Homo sapiens

```

```

<400> 3479
nctttccaac ccagcctgaa ggggaaagcc acctcggagg acaccctcaa tctaaggaga
60
taccgccgct ctgacaggat catgctgcag aagtggcaga aaagggacat cagcaatttt
120
gagtatctca tgtacctcaa caccgaggct gggagaacct gcaatgacta catgcagtac
180
ccagtgttcc cctgggttct cgcagactac acctcagaga cattgaactt ggcaaatccg
240
aagattttcc gggatctttc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa
300
tttatccaga ggtttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac
360
tactacacc cactactcctc gcccatcctc gtggcctcct acctgggtccg gatgccacc
420
ttcaccagg ccttctgcgc tctgcagggt agctgctgcc actctctgta cacacacaca
480
cacacacaca cacacacata cgctgtatc acaagactaa gacctgtgct tgaacaaaga
540
caggatgcct ctgctaaaaa cttagtcatt agccagtgat tccagttga cattggctcc
600
aggattctgg ctccaccgcc aaggcaggct gttcttctc agttacacct gcacatctgc
660
ccaacaaagt cttgcaaaat gattctaaaa aataagaat gagacatgaa aaaaatgatt
720
taacataaat aagatttagt ggaaaaagaa aaagcaggaa acttgagac tagaaaggca
780
ggcgggtcaag gattaga
797

```

```

<210> 3480
<211> 192
<212> PRT
<213> Homo sapiens

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```

<400> 3480
Xaa Phe Gln Pro Ser Leu Lys Gly Lys Ala Thr Ser Glu Asp Thr Leu
1          5          10          15
Asn Leu Arg Arg Tyr Pro Gly Ser Asp Arg Ile Met Leu Gln Lys Trp
      20          25          30
Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

```

35					40					45					
Ala	Ala	Gly	Arg	Thr	Cys	Asn	Asp	Tyr	Met	Gln	Tyr	Pro	Val	Phe	Pro
50					55					60					
Trp	Val	Leu	Ala	Asp	Tyr	Thr	Ser	Glu	Thr	Leu	Asn	Leu	Ala	Asn	Pro
65	70				75				80						
Lys	Ile	Phe	Arg	Asp	Leu	Ser	Lys	Pro	Met	Gly	Ala	Gln	Thr	Lys	Glu
85					90					95					
Arg	Lys	Leu	Lys	Phe	Ile	Gln	Arg	Phe	Lys	Glu	Val	Glu	Lys	Thr	Glu
100					105					110					
Gly	Asp	Met	Thr	Ala	Gln	Cys	His	Tyr	Tyr	Thr	His	Tyr	Ser	Ser	Ala
115					120					125					
Ile	Ile	Val	Ala	Ser	Tyr	Leu	Val	Arg	Met	Pro	Pro	Phe	Thr	Gln	Ala
130					135					140					
Phe	Cys	Ala	Leu	Gln	Val	Ser	Cys	Cys	His	Ser	Leu	Tyr	Thr	His	Thr
145	150				155				160						
His	Thr	His	Thr	His	Thr	Tyr	Ala	Cys	Ile	Thr	Arg	Leu	Arg	Pro	Val
165					170					175					
Leu	Glu	Gln	Arg	Gln	Asp	Ala	Ser	Ala	Lys	Asn	Leu	Val	Ile	Ser	Gln
180					185					190					

<210> 3481

<211> 1794

<212> DNA

<213> Homo sapiens

<400> 3481

nncaacgctgg	tcaccacctc	acgaactata	agaagcgtgt	ggcagccttg	gaagccacgc
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120	atgagggtcct	gaccagaggg	tcttctgcc	atgcctccaa	gtggtcacca
180	gcagaccctg	cgggtgctggg	agccaccatg	gagagtaggt	gctacggctg
240	ttcacccctc	tcaagaagga	gtacggctgt	aagaattgtg	gcaggngctt
300	tgccctaagct	tcagtgcagc	agtgcctcgg	actgggaaca	cccaacagaa
360	caatgccatg	aggtcctgac	cagagggtct	tctgccaatg	cctccaagtg
420	cagaactata	agaagcgtgt	ggcagccttg	gaagccaagc	aaaagcccag
480	agccaggggac	tgacacgaca	agaccagatg	attgctgagc	gcctagcagc
540	gagaacaagc	ccaagttagt	ccccctcacag	gcagagatag	aggcacggct
600	aaggatgaac	gtcagggttc	catcccttcc	accagggaaa	tggaggcacg
660	tttcaggggca	gagttctacc	ttctcaaaac	ccccagcccc	gcacatcaca
720	caggacccaa	gcccagcaga	cacaggatct	gctaacgcga	ctggcagctg
780	cgatgaaagc	tggaaaggag	gaggcccacg	tgctctcttc	cagaatgata
840					tcaaccaggg

tggcccaggg agcactaatt ccaagaggca ggccacttgg ttcttgaga aggagaagag
 900
 cagactgctg gctgaggcag cacttgagtt gcgggaggag aacacgaggc aggaacggat
 960
 tctggccctg gccaaagcgac tagccatgct gcggggacag gaccccgaga gactgacctt
 1020
 ccaggactat cgctccccag acagtgatga cgacgaggat gaggagacag ccatccaaag
 1080
 agtctctcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc
 1140
 tgcagagcag gcttctcgac cctggacgca accccgcggg gcagagcctg agggccaggga
 1200
 tgtggacccc aggcctgagg ctgaggaaga ggagctcccc tgggtctgca tctgcaatga
 1260
 ggatgccacc ctacgctgcg ctggctgcca tggggacctc ttctgtgccc gctgcttccg
 1320
 agagggccat gatgcctttg agcttaaaga gcaccagaca tctgcctact ctctctccag
 1380
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 1440
 ggcaaccatt tctgggcccc gccacaggac gtcgatggg agagcttgct tggctctact
 1500
 gatgatggat agggcccttc ctgagccttg gtgtccctgg aatgaggaag gattctccat
 1560
 tcgagagaat gactggggagg gaagaagtgc gggccctcct attagaagcc cagactggaa
 1620
 gtgagaggca tgatggggag agaccagact gaatctacgg gtgagccctg taacctggct
 1680
 ctagggcaca ggcccctccc ctggcactta gtgggtctaa taaagtatgt tgattcattg
 1740
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa aaaa
 1794

<210> 3482

<211> 206

<212> PRT

<213> Homo sapiens

<400> 3482

Met Pro Pro Ser Gly His His Leu Ser Ser Ala Asp Pro Ala Val Leu
 1 5 10 15
 Gly Ala Thr Met Glu Ser Arg Cys Tyr Gly Cys Ala Val Lys Phe Thr
 20 25 30
 Leu Phe Lys Lys Glu Tyr Gly Cys Lys Asn Cys Gly Arg Xaa Phe Cys
 35 40 45
 Ser Gly Cys Leu Ser Phe Ser Ala Ala Val Pro Arg Thr Gly Asn Thr
 50 55 60
 Gln Gln Lys Val Cys Lys Gln Cys His Glu Val Leu Thr Arg Gly Ser
 65 70 75 80
 Ser Ala Asn Ala Ser Lys Trp Ser Pro Pro Gln Asn Tyr Lys Lys Arg
 85 90 95
 Val Ala Ala Leu Glu Ala Lys Gln Lys Pro Ser Thr Ser Gln Ser Gln
 100 105 110
 Gly Leu Thr Arg Gln Asp Gln Met Ile Ala Glu Arg Leu Ala Arg Leu

```

      115              120              125
Arg  Gln Glu Asn Lys Pro Lys Leu Val Pro Ser Gln Ala Glu Ile Glu
    130              135              140
Ala  Arg Leu Ala Ala Leu Lys Asp Glu Arg Gln Gly Ser Ile Pro Ser
    145              150              155              160
Thr  Gln Glu Met Glu Ala Arg Leu Ala Ala Leu Gln Gly Arg Val Leu
      165              170              175
Pro  Ser Gln Thr Pro Gln Pro Gly Thr Ser His Thr Gly His Gln Asp
      180              185              190
Pro  Ser Pro Ala Asp Thr Gly Ser Ala Asn Ala Ala Gly Ser
    195              200              205

```

<210> 3483

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3483

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ncggcgcgagg cgcggaacgg cgccctccgc ccacccatgg gcaacagcgc gagccgcaac
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gacttcgagt gggtctacac cgaccagccg cacacgcagc ggcgcaagga gatactggcc
120
aagtaccggg ccatcaaggc cctgatgcgg ccagaccgcg gcctcaagtg ggcggggctg
180
gtgctgggtc tgggtcagat gctggcctgc tggctggtgc gcgggctggc ctggcgctgg
240
ctgctgttct gggcctacgc ctttgggtgc tgcgtgaacc actcgctgac gctggccatc
300
cacgacatct cgacaacgc ggcccttcggc acggggccgtg cggcacgcaa ccgctggctg
360
gccgtgttgc ccaacctgcc cgtgggtgtg ccctacgccg cctccttcaa gaagtaccac
420
gtggaccacc accgctacct gggcgggcgc ggactggacg tggacgtgcc caccgct
477

```

<210> 3484

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3484

```

Met Gly Asn Ser Ala Ser Arg Asn Asp Phe Glu Trp Val Tyr Thr Asp
  1              5              10              15
Gln Pro His Thr Gln Arg Arg Lys Glu Ile Leu Ala Lys Tyr Pro Ala
      20              25              30
Ile Lys Ala Leu Met Arg Pro Asp Pro Arg Leu Lys Trp Ala Gly Leu
      35              40              45
Val Leu Val Leu Val Gln Met Leu Ala Cys Trp Leu Val Arg Gly Leu
      50              55              60
Ala Trp Arg Trp Leu Leu Phe Trp Ala Tyr Ala Phe Gly Gly Cys Val
      65              70              75              80
Asn His Ser Leu Thr Leu Ala Ile His Asp Ile Ser His Asn Ala Ala
      85              90              95
Phe Gly Thr Gly Arg Ala Ala Arg Asn Arg Trp Leu Ala Val Phe Ala

```



```

          100              105              110
Asn Leu Pro Val Gly Val Pro Tyr Ala Ala Ser Phe Lys Lys Tyr His
          115              120              125
Val Asp His His Arg Tyr Leu Gly Gly Asp Gly Leu Asp Val Asp Val
          130              135              140
Pro Thr Arg
145

```

<210> 3485
 <211> 812
 <212> DNA
 <213> Homo sapiens

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<400> 3485
tattttattta tagtcacaaa aactgttcag gaagaaatgt tatgaaaga acatttttac
60
tgcatgctta aacattttaa ttttctatta tacagttaaa catttgcttg aattcagtga
120
gtctaaaaaa tcttattggt ctcagggttag cagttagttg agcagagtcc attgggtgaag
180
caatctagtt attggcaaat tctaacacat ggtaaggtgt gggggaaagg atttaaaata
240
acagaaaaat gtaagtacaa acatacataa cagcaaaaata aaactcatt taacaaaaat
300
ttatttaaaa tgttaccccc atatttcctc aatgaccaac ttgtttcagt tttatctccc
360
ctctatccgg ttattttatg tctttttggg aggaaggagg atgaggggtt ttgtttttta
420
acaaaaatcac tggcttttta aaaagtgtta ctgcagtcac ttataagatg catgttatgt
480
ggaagtgtata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaaggagt
540
atgagttccag aaaaaaatcc ttcaggaacc ttcaagattg aagaagaac ttcttttaac
600
attaaagacc aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact
660
cctgtgttaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcatcacta
720
tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa
780
ggaacacgca tgtccttaaa ctcaaaggat cc
812

```

<210> 3486
 <211> 117
 <212> PRT
 <213> Homo sapiens

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<400> 3486
Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser
  1           5           10          15
Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn
          20          25          30
Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

```

```

          35              40              45
Leu Thr Ile Ser Glu Glu Thr Leu Ala Asn Asn Thr Trp Ser Leu Met
   50              55              60
Leu Lys Glu Val Leu Ser Ser Ile Leu Lys Val Pro Glu Gly Phe Phe
   65              70              75              80
Ser Gly Leu Ile Leu Leu Ser Glu Leu Leu Pro Leu Pro Leu Pro Met
          85              90              95
Gln Thr Thr Gln Val Ser Leu Pro His Asn Met His Leu Ile Asn Asp
          100              105              110
Cys Ser Asn Thr Phe
          115

```

<210> 3487

<211> 772

<212> DNA

<213> Homo sapiens

<400> 3487

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nnattgtatc aaaaatcctag atttgaataa cttattattt taaataatca gtaactaaaa
60
ccaagcaatc catcacacaa agaggggaaa gggtaatat ctgagttata aattttttac
120
cctgtctgat aaaaatagaa gacctgaaagt ttaaattttt cctggattta aatttaaaga
180
taaatttggt ttctagttaa atacctctca tagcaatttt accaaagagg ccttcttctg
240
aagggccacct ctgaaataat tagaggataa atgtcaatgg catgatatta agatattact
300
tggccaggcg tggctgctcac gcgtgtaatc ccagcacttt gggaggccga ggcagggtga
360
tcacgaggtc aagaaatcga gaccagcctg gctaacacag tgaaccccg tctcattctg
420
agcttcttga caccttttaa tccagtcact gaaattagca tctgcaccta gaaagaaaaa
480
actgactata acatcactca tctgcacaac ctattaatca gcaataactt actgaatacc
540
tactacatcc caggcagtgt tctaggcact ggggagtcgg cagcgaacaa aacctgtctt
600
aacagacctt atcaccaact ctactatagt tataaacata ccaatagttt aacatttagt
660
tgtaaatcat gaaacatttt gattttttaa aaattttaac tacagtcacac cttaatttca
720
cagatacaaa taatctgcat ttcccccaat cccgctgctc ttagagaagc tt
772

```

<210> 3488

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3488

```

Asp Ile Thr Trp Pro Gly Val Val Val Thr Arg Val Ile Pro Ala Leu
   1              5              10              15
Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu Ile Glu Thr Ser

```

```

                20                25                30
Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro
                35                40                45
Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
                50                55

```

<210> 3489

<211> 288

<212> DNA

<213> Homo sapiens

<400> 3489

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tagctaacac tccactatgg gagcccatct cctcccaggg ccagggagac cagggagacc
60
aggggagacca ggtctggccc ccaactctaa ggctcatctt agaggcgaga ttcaggccca
120
gcccaggggtg ccccatgagg cctgggtggtt ggaggcagag ggatccctt gcccaaatc
180
gtgccacatt cacagtcact gggaaagcta cggggatggg ccggggcgcg tggtcacac
240
ctgtaatccc agcactttgg agagcccaa gacgacggat cacgagtc
288

```

<210> 3490

<211> 90

<212> PRT

<213> Homo sapiens

<400> 3490

```

Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly
1          5          10          15
Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
          20          25          30
Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
          35          40          45
Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
          50          55          60
Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
65          70          75          80
Leu Glu Ser Pro Lys Thr Thr Asp His Glu
          85          90

```

<210> 3491

<211> 568

<212> DNA

<213> Homo sapiens

<400> 3491

```

gggaaccgac gtccctctgt ggtgaaatc cacccttca cgccgtgcat cgccgtagcc
60
gacaaggaca gcatctgctt ttgggactgg gagaaagggg agaagctgga ttatttccac
120
aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc
180

```

tcgcttctgc tgacggccac agacgatggt gccatcaggg tctggaagaa ttttgctgat
 240
 ttggaaga acccagagat ggtgaccgcg tggcaggggc tctcggacat gctgccaacg
 300
 acgcgaggag ctgggatggt ggtggactgg gagcaggaga ccggcctcct catgagctca
 360
 ggagacgtgc ggatcgctccg gatctgggac acagaccgtg agatgaaggt gcaggacatc
 420
 cctacggggc cagacagctg tgtgacgagt ctgtcctgtg attccaccg ctcactcatc
 480
 gtggctggcc tcggtgacgg ctccatecgc gtctacgaca gaaggatggc actcagcgaa
 540
 tgccgcgtca tgacgtaccg ggagcaca
 568

<210> 3492

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3492

Gly	Asn	Arg	Arg	Pro	Ser	Val	Val	Lys	Phe	His	Pro	Phe	Thr	Pro	Cys
1				5					10					15	
Ile	Ala	Val	Ala	Asp	Lys	Asp	Ser	Ile	Cys	Phe	Trp	Asp	Trp	Glu	Lys
			20					25					30		
Gly	Glu	Lys	Leu	Asp	Tyr	Phe	His	Asn	Gly	Asn	Pro	Arg	Tyr	Thr	Arg
		35					40					45			
Val	Thr	Ala	Met	Glu	Tyr	Leu	Asn	Gly	Gln	Asp	Cys	Ser	Leu	Leu	Leu
		50				55					60				
Thr	Ala	Thr	Asp	Asp	Gly	Ala	Ile	Arg	Val	Trp	Lys	Asn	Phe	Ala	Asp
65					70					75				80	
Leu	Glu	Lys	Asn	Pro	Glu	Met	Val	Thr	Ala	Trp	Gln	Gly	Leu	Ser	Asp
			85						90					95	
Met	Leu	Pro	Thr	Thr	Arg	Gly	Ala	Gly	Met	Val	Val	Asp	Trp	Gly	Gln
		100						105					110		
Glu	Thr	Gly	Leu	Leu	Met	Ser	Ser	Gly	Asp	Val	Arg	Ile	Val	Arg	Ile
		115						120				125			
Trp	Asp	Thr	Asp	Arg	Glu	Met	Lys	Val	Gln	Asp	Ile	Pro	Thr	Gly	Ala
		130				135					140				
Asp	Ser	Cys	Val	Thr	Ser	Leu	Ser	Cys	Asp	Ser	His	Arg	Ser	Leu	Ile
145					150					155				160	
Val	Ala	Gly	Leu	Gly	Asp	Gly	Ser	Ile	Arg	Val	Tyr	Asp	Arg	Arg	Met
			165						170					175	
Ala	Leu	Ser	Glu	Cys	Arg	Val	Met	Thr	Tyr	Arg	Glu	His			
		180						185							

<210> 3493

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 3493

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 60

aaggaactgt ttggagatga cagtgaggac gagggagctt cacatcatag tggtagtgat
120
aatcactctg aaagatcaga caatagatca gaagcttctg agcgttctga ccatgaggac
180
aatgacctct cagatgtaga tcagcacagt ggatcagaag cccctaata tgaatgaagac
240
gaaggtcata gatcggatgg agggagccat cattcagaag cagaaggttc tgaataaagca
300
catttcagatg atgaaaaatg gggcagagaa gataaaagt accagtcaga tgaatgaagac
360
atacaaaatt ctgatgatga ggagagggca caaggatctg atgaagataa gctgcagaat
420
tctgacgatg atgagaaaat gcagaacaca gatgatgagg agaggcctca gctttccgat
480
gatgagagac aacagctatc tgaggaggaa aaggctaatt ctgatgatga acggcccgta
540
gcttctgata atgatgatga gaaacagaat tctgatgatg aagaacaacc acagctgtct
600
gatgaagaga aaatgcaaaa ttctgatgat gaaaggccac agggcccaga tgaagaacac
660
aggcattcag atgatgaaga ggaacaggat cataaatcag aatccgcaag aggcagtgat
720
agtgaagatg aagttttacg aatgaaacgc aagaatgcga ttgcatctga ttcagaagcg
780
gatagtgaac ctgaggtgcc aaaagataat agtggaaacca tggatttatt tggagggtgca
840
gatgatatact cttcaggagg tgatggagaa gacaaaccac ctactccagg acagcctgtt
900
gatgaaaaatg gattgcctca ggatcaacag gaagaggagc caattcctga gaccagaata
960
gaagtagaaa taccctaaagt aaacactgat ttaggaaacg acttatattt tggtaaactg
1020
cccaactttc tcagtgtaga gccagacct tttgatcttc agtattatga agatgaattt
1080
gaagatgaag aaatgctgga tgaagaaggt agaaccagggt taaaattaaa ggtagaaaa
1140
actataagat ggaggatagc cggagatgaa gaaggaaatg aaattaaaga aagcaatgct
1200
cggatagtca agtggtcaga tggagagcat tccctgcatt taggcaatga agtggttgat
1260
gtgtacaaag cccactgca gggcgaccac aatcatcttt ttataagaca aggtactggg
1320
ctacagggag aagcagctctt taaagcgaaa ctacacttca gacctcactc tacggacagt
1380
gccacacata gaaagatgac tctgtcactt gcagataggt gttcaaaagc acagaagatt
1440
agaattcttc caatggctgg tcgtgatcct gaatgccaac gcacagaaat gattaagaaa
1500
gaagaagaac gtttgagggc ttccatacgt agggaaatctc agcagcgccg aatgagagag
1560
aaacagcacc agcgggggct gagcgccagt tacctggaac ctgatcgata cgatgaggag
1620
gaggaaggcg aggagtcctc cagcttggtt gccattaaaa accgatataa agggggcatt
1680

cgagaggaac gagccagaat ctattcatca gacagtgatg agggatcaga agaagataaa
 1740
 gctcaaagat tactcaaagc aaagaaactt accagtgatg aggaaggtga accttcgga
 1800
 aagagaaaag cagaagatga tgataaaagca aataaaaagc ataagaagta tgtgatcagc
 1860
 gatgaagagg aagaagatga tgattgaagt atgaaatatg aaaacatttt atatatttta
 1920
 ttgtacagtt ataaatatgt aaacatgagt tattttgatt gaaatgaatc gatttgcttt
 1980
 tgtgtaattt taattgtaat aaaacaattt aaaagcaagt ctctatgttt aagaaatcta
 2040
 cttttccggc caggcgcggt ggctcatgcc tgtaatccca gcacttcggg aggccgaggc
 2100
 aggtgggatca caaggtcgtg gtggcgggtg cctgtagtcg cagctactcg ggagggtgag
 2160
 gcgggggaaat tgggtgaacc caggaggcag aggttgcagt tagccgagat cgcgccactg
 2220
 cactccagcc tggcgacaga gcta
 2244

<210> 3494

<211> 628

<212> PRT

<213> Homo sapiens

<400> 3494

Xaa	Gly	Gly	Tyr	Pro	Cys	Ser	Asp	Gln	Asp	Glu	Arg	Gly	Asp	Ser	Gly
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Gln	Pro	Ser	Asn	Lys	Glu	Leu	Phe	Gly	Asp	Asp	Ser	Glu	Asp	Glu	Gly
			20					25					30		
Ala	Ser	His	His	Ser	Gly	Ser	Asp	Asn	His	Ser	Glu	Arg	Ser	Asp	Asn
		35				40						45			
Arg	Ser	Glu	Ala	Ser	Glu	Arg	Ser	Asp	His	Glu	Asp	Asn	Asp	Pro	Ser
	50					55				60					
Asp	Val	Asp	Gln	His	Ser	Gly	Ser	Glu	Ala	Pro	Asn	Asp	Asp	Glu	Asp
65				70					75					80	
Glu	Gly	His	Arg	Ser	Asp	Gly	Gly	Ser	His	His	Ser	Glu	Ala	Glu	Gly
			85					90						95	
Ser	Glu	Lys	Ala	His	Ser	Asp	Asp	Glu	Lys	Trp	Gly	Arg	Glu	Asp	Lys
		100						105				110			
Ser	Asp	Gln	Ser	Asp	Asp	Glu	Lys	Ile	Gln	Asn	Ser	Asp	Asp	Glu	Glu
		115				120						125			
Arg	Ala	Gln	Gly	Ser	Asp	Glu	Asp	Lys	Leu	Gln	Asn	Ser	Asp	Asp	Asp
	130					135					140				
Glu	Lys	Met	Gln	Asn	Thr	Asp	Asp	Glu	Glu	Arg	Pro	Gln	Leu	Ser	Asp
145				150						155				160	
Asp	Glu	Arg	Gln	Gln	Leu	Ser	Glu	Glu	Glu	Lys	Ala	Asn	Ser	Asp	Asp
			165					170						175	
Glu	Arg	Pro	Val	Ala	Ser	Asp	Asn	Asp	Asp	Glu	Lys	Gln	Asn	Ser	Asp
		180						185				190			
Asp	Glu	Glu	Gln	Pro	Gln	Leu	Ser	Asp	Glu	Glu	Lys	Met	Gln	Asn	Ser
	195					200						205			
Asp	Asp	Glu	Arg	Pro	Gln	Ala	Pro	Asp	Glu	Glu	His	Arg	His	Ser	Asp

210 215 220
 Asp Glu Glu Glu Gln Asp His Lys Ser Glu Ser Ala Arg Gly Ser Asp
 225 230 235 240
 Ser Glu Asp Glu Val Leu Arg Met Lys Arg Lys Asn Ala Ile Ala Ser
 245 250 255
 Asp Ser Glu Ala Asp Ser Asp Thr Glu Val Pro Lys Asp Asn Ser Gly
 260 265 270
 Thr Met Asp Leu Phe Gly Gly Ala Asp Asp Ile Ser Ser Gly Ser Asp
 275 280 285
 Gly Glu Asp Lys Pro Pro Thr Pro Gly Gln Pro Val Asp Glu Asn Gly
 290 295 300
 Leu Pro Gln Asp Gln Gln Glu Glu Glu Pro Ile Pro Glu Thr Arg Ile
 305 310 315 320
 Glu Val Glu Ile Pro Lys Val Asn Thr Asp Leu Gly Asn Asp Leu Tyr
 325 330 335
 Phe Val Lys Leu Pro Asn Phe Leu Ser Val Glu Pro Arg Pro Phe Asp
 340 345 350
 Pro Gln Tyr Tyr Glu Asp Glu Phe Glu Asp Glu Glu Met Leu Asp Glu
 355 360 365
 Glu Gly Arg Thr Arg Leu Lys Leu Lys Val Glu Asn Thr Ile Arg Trp
 370 375 380
 Arg Ile Arg Arg Asp Glu Glu Gly Asn Glu Ile Lys Glu Ser Asn Ala
 385 390 395 400
 Arg Ile Val Lys Trp Ser Asp Gly Ser Met Ser Leu His Leu Gly Asn
 405 410 415
 Glu Val Phe Asp Val Tyr Lys Ala Pro Leu Gln Gly Asp His Asn His
 420 425 430
 Leu Phe Ile Arg Gln Gly Thr Gly Leu Gln Gly Gln Ala Val Phe Lys
 435 440 445
 Ala Lys Leu Thr Phe Arg Pro His Ser Thr Asp Ser Ala Thr His Arg
 450 455 460
 Lys Met Thr Leu Ser Leu Ala Asp Arg Cys Ser Lys Thr Gln Lys Ile
 465 470 475 480
 Arg Ile Leu Pro Met Ala Gly Arg Asp Pro Glu Cys Gln Arg Thr Glu
 485 490 495
 Met Ile Lys Lys Glu Glu Glu Arg Leu Arg Ala Ser Ile Arg Arg Glu
 500 505 510
 Ser Gln Gln Arg Arg Met Arg Glu Lys Gln His Gln Arg Gly Leu Ser
 515 520 525
 Ala Ser Tyr Leu Glu Pro Asp Arg Tyr Asp Glu Glu Glu Gly Glu
 530 535 540
 Glu Ser Ile Ser Leu Ala Ala Ile Lys Asn Arg Tyr Lys Gly Gly Ile
 545 550 555 560
 Arg Glu Glu Arg Ala Arg Ile Tyr Ser Ser Asp Ser Asp Glu Gly Ser
 565 570 575
 Glu Glu Asp Lys Ala Gln Arg Leu Leu Lys Ala Lys Lys Leu Thr Ser
 580 585 590
 Asp Glu Glu Gly Glu Pro Ser Gly Lys Arg Lys Ala Glu Asp Asp Asp
 595 600 605
 Lys Ala Asn Lys Lys His Lys Lys Tyr Val Ile Ser Asp Glu Glu Glu
 610 615 620
 Glu Asp Asp Asp
 625

<210> 3495
 <211> 1085
 <212> DNA
 <213> Homo sapiens

<400> 3495
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 120
 gcgtccccgg aggagatcaa gaaggcctat cggaagctgg cgctcaagta ccacccggac
 180
 aagaacccgg atgagggcga gaagttttaa ctcatatccc aggcataatga agtgctttca
 240
 gatccaaaga aaagggatgt ttatgaccaa ggcggagagc aggcatttaa agaaggaggc
 300
 tcaggcagcc ccagcttctc ttcacccatg gacatctttg acatgttctt tgggtggtgg
 360
 ggacggatgg ctagagagag aagaggcaag aatgtgttac accagttatc tgtaactctt
 420
 gaagatctat ataattggagt cacgaagaaa ttggccctcc agaaaaatgt aatttgtgag
 480
 aaatgtgaag gtgttggtgg gaagaaggga tcggtggaga agtgcccgcgt gtgcaagggg
 540
 cggggggatgc agatccacat ccagcagatc gggccgggca tggtagacga gatccagacc
 600
 gtgtgcatcg agtgcaaggg ccagggtgag cgcatacaacc ccaaggaccg ctgagagagc
 660
 tgcagcgggg ccaagggtgat ccgtgagaag aagattatcg aggtacatgt tgaataagggt
 720
 atgaaagatg ggcaaaagat actatttcat ggagaaggag atcaggagcc tgagctggag
 780
 cctgggtgatg tcataattgt gcttgatcag aaggatcata gtgtctttca gagacgaggc
 840
 catgacttga tcatgaaaaa gaaaattcag ctttctgaag ctctttgtgg cttcaagaag
 900
 acgataaaaa cattggacaa tcgaattctt gttattacat ccaagcagg tgaggtgata
 960
 aagcacgggg acctgagatg cgtgcgcgat gaaggaatgc ccatctacaa agcaccctg
 1020
 gaaaaaggga ttctgatcat acagttttta gtaatctttc ctganaaaca ctggtctttc
 1080
 ctgga
 1085

<210> 3496
 <211> 337
 <212> PRT
 <213> Homo sapiens

<400> 3496
 Met Val Lys Glu Thr Gln Tyr Tyr Asp Ile Leu Gly Val Lys Pro Ser
 1 5 10 15
 Ala Ser Pro Glu Glu Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys


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                20                25                30
Tyr His Pro Asp Lys Asn Pro Asp Glu Gly Glu Lys Phe Lys Leu Ile
    35                40                45
Ser Gln Ala Tyr Glu Val Leu Ser Asp Pro Lys Lys Arg Asp Val Tyr
    50                55                60
Asp Gln Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ser Gly Ser Pro
    65                70                75                80
Ser Phe Ser Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly
    85                90                95
Gly Arg Met Ala Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu
    100                105                110
Ser Val Thr Leu Glu Asp Leu Tyr Asn Gly Val Thr Lys Lys Leu Ala
    115                120                125
Leu Gln Lys Asn Val Ile Cys Glu Lys Cys Glu Gly Val Gly Gly Lys
    130                135                140
Lys Gly Ser Val Glu Lys Cys Pro Leu Cys Lys Gly Arg Gly Met Gln
    145                150                155                160
Ile His Ile Gln Gln Ile Gly Pro Gly Met Val Gln Gln Ile Gln Thr
    165                170                175
Val Cys Ile Glu Cys Lys Gly Gln Gly Glu Arg Ile Asn Pro Lys Asp
    180                185                190
Arg Cys Glu Ser Cys Ser Gly Ala Lys Val Ile Arg Glu Lys Lys Ile
    195                200                205
Ile Glu Val His Val Glu Lys Gly Met Lys Asp Gly Gln Lys Ile Leu
    210                215                220
Phe His Gly Glu Gly Asp Gln Glu Pro Glu Leu Glu Pro Gly Asp Val
    225                230                235                240
Ile Ile Val Leu Asp Gln Lys Asp His Ser Val Phe Gln Arg Arg Gly
    245                250                255
His Asp Leu Ile Met Lys Met Lys Ile Gln Leu Ser Glu Ala Leu Cys
    260                265                270
Gly Phe Lys Lys Thr Ile Lys Thr Leu Asp Asn Arg Ile Leu Val Ile
    275                280                285
Thr Ser Lys Ala Gly Glu Val Ile Lys His Gly Asp Leu Arg Cys Val
    290                295                300
Arg Asp Glu Gly Met Pro Ile Tyr Lys Ala Pro Leu Glu Lys Gly Ile
    305                310                315                320
Leu Ile Ile Gln Phe Leu Val Ile Phe Pro Xaa Lys His Trp Leu Ser
    325                330                335
Leu

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<210> 3497

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 3497

nnaagttaaa aataaatttt caaaccttat catatttact ttaccaacaa tcttgattac
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gtggcaactt tgttgctata attttatgca gcagataaag gttagcgttc ctccccaaag
120

tttttagtat atccttctaa aaagtitttc tgagaatttt tagtttggtc tctcaagttt
180

ccttatttta ccttttctta aattacctcc ctcttctctt agtgaaatga gccttccttc
240
agcatatcgca acttatctctt attgcttttt tcatacccaa ttttttgttt tatctctttc
300
agccaactgg gtcctgaagt agctgaaatg cgaaaaaggc agcagtccca aaatgaagga
360
acacctgctg tgtctcaagc tcctggaaac cagaggccca acaacacctg ttgcttttgt
420
tggtgctgtt gttgcagctg ctctgcctc actgtgagga atgaagaaa aggggaaaa
480
gcgggaagac ccacacacac tacaaaaatg gagagtatcc aggtcctaga ggaatgccaa
540
aacccactg cagaggaagt cttgtcctgg tctcaaaatt ttgacaagat gatgaaggcc
600
ccagcaggaa gaaacctttt cagagagtcc ctccgaacag aatacagtga agagaacct
660
cttttctggc ttgcttgtga agacttaaag aaggagcaga acaaaaaagt aattgaagaa
720
aaggctagga tgatatatga agattacatt tctatactat caccaaaaga ggtcagtcct
780
gattctcgag ttagagaggt gatcaataga aatctgttg atcccaatcc tcacatgtat
840 aacttcagat atatacttta atgcacagag attcttttcc aaggtttttg 900
aactctcaaa tttataagtc atttggtgaa agtactgctg gctcttcttc tgaatcttaa
960
tgttctatta aaaacaatca ttttgagggg ctgagatggg aaataaaagt agttaaataa
1020
catcagaaac tgagtctctg gagaactaca gtttagcatt cctcaggcta ctgtgaaaa
1080
acaaccgcta tggcttttgt ctccattttt atcaagggtt tccatggta agtttgga
1140
aaataccaca caaaacaatg aattgccaaa ttgtttgttt tattcaagac tcattctact
1200
tgcaagcaaa gtgtatttgt agtcctatga acagtctcct cgtgtatctc cagagactgc
1260
atgtgcaaa gtaaatgctt catttgccac atagtgtgtg taatatattaa tccagtagca
1320
taacttatat ctgtatttaa ggacttttgt gcaatatggt ctttaagaaat aattgccaaa
1380
aaaatcggcc atggtttgca ttttttaaca taatctaaga cagaaaaaaa gcaattttta
1440
ctatgtaaca atggtattca acattctata tactgtgttt agtacctaa ttttgaagcc
1500
aatatttctg tacatgaaaa agagctatct atctctgttt gttggaanaa cctaattggg
1560
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1620
ctaaaagcaa aaaacaaa
1638

<210> 3498

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3498

Met Arg Lys Arg Gln Gln Ser Gln Asn Glu Gly Thr Pro Ala Val Ser
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 Gln Ala Pro Gly Asn Gln Arg Pro Asn Asn Thr Cys Cys Phe Cys Trp
 20 25 30
 Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg
 35 40 45
 Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile
 50 55 60
 Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser
 65 70 75 80
 Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn
 85 90 95
 Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu
 100 105 110
 Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val
 115 120 125
 Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu
 130 135 140
 Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn
 145 150 155 160
 Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu
 165 170 175
 Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn
 180 185 190
 Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser
 195 200 205
 Glu Ser
 210

<210> 3499

<211> 732

<212> DNA

<213> Homo sapiens

<400> 3499

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 120
 tgccacgggc ggcgctccag cctggcacag aggtattgtg attcccaanaa tggccaagnc
 180
 aacagactcn aacctcagga tngttctatt ttgcgccaga agcaataatt ttttttccct
 240
 tctggaagac cctttcaaga tagtgatgtt gatgtggggg caggcggtc gccgggtaca
 300
 tggaggtacc ggggtcacag cagcgcaagc accgggaagc agggagcccc tggctctgac
 360
 tgggctctgta tttttcatgt tgtttcttag ccctctcggc atgggtccga ggcgacggca
 420
 gctcctcagt ccctccac tcctgctgtt cccctcggac atggggcaca cgactcagga
 480
 ccaggccaga ggcaaaggca aggagcaggc agtacgccag caagagtccc tgtccacggg
 540

agcccatctt cctgccgggc cctccgtccc gccggccgct cctcccgcgc cgcacctaga
 600
 gcatctcccg ccgccaagc ctccctcccg ccanggtccg gggcgatgca cagactcggt
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 gaaggaaaca gagcagggga aaaggtcttc cggaggacgg cagtgcagaa gaggagggtg
 720
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 732

<210> 3500

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3500

Phe	Phe	Phe	Pro	Ser	Gly	Lys	Pro	Phe	Gln	Asp	Ser	Asp	Val	Asp	Val
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Gly	Ala	Arg	Arg	Ser	Pro	Gly	Thr	Trp	Arg	Tyr	Arg	Gly	His	Ser	Ser
			20					25					30		
Ala	Ser	Thr	Gly	Lys	Gln	Gly	Ala	Pro	Gly	Pro	Asp	Trp	Ala	Cys	Ile
			35				40					45			
Phe	His	Val	Val	Leu	Gln	Pro	Ser	Arg	His	Gly	Pro	Glu	Ala	Thr	Ala
	50					55					60				
Ala	Pro	Gln	Ser	Pro	Pro	Thr	Pro	Ala	Val	Pro	Pro	Gly	His	Gly	Ala
	65				70					75				80	
His	Asp	Ser	Gly	Pro	Gly	Gln	Arg	Gln	Arg	Gln	Gly	Ala	Gly	Ser	Thr
			85						90					95	
Pro	Ala	Arg	Val	Pro	Val	His	Gly	Ser	Pro	Ser	Ser	Cys	Arg	Ala	Leu
			100						105					110	
Arg	Pro	Ala	Gly	Arg	Ser	Ser	Arg	Ala	Ala	Pro	Arg	Ala	Ser	Pro	Ala
			115				120							125	
Gly	Gln	Ala	Ser	Ser	Arg	Pro	Xaa	Ser	Gly	Ala	Met	His	Arg	Leu	Gly
			130				135				140				
Glu	Gly	Asn	Arg	Ala	Gly	Glu	Lys	Val	Phe	Arg	Arg	Thr	Ala	Val	Gln
					150					155					160
Lys	Arg	Arg	Val	Gly	Gly	Gly	Thr								
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<210> 3501

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3501

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 120
 cccctatag agaagatgga tgcctccttg tccatgcttg ctaattgcga gaagctttca
 180
 ctgtctacaa actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata
 240
 ttatctttag gaagaacaaa cataaagaac ttaaatggac tggaggcagt aggggacaca
 300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaggggat ccacataatg
 360
 aagaaattga agatttctcta catgtctaata aacctggtaa aagactgggc tgagtttgtg
 420
 aagctggcag aactgccatg cctcgaagac ctgggtgttg taggcaatcc ctggaagag
 480
 aaacattctg ctgagaataa ctggattgaa gaagcaacca agagagtgcc caaactgaaa
 540
 aagctggatg gtactccagt aattaaaggg gatgaggaag aagacaacta atgccacgct
 600
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 660
 gtctatttta aaaaaaaaaa aaaaaaaaaa a
 691

<210> 3502

<211> 196

<212> PRT

<213> Homo sapiens

<400> 3502

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 20 25 30
 Glu Ile Lys Leu Tyr Ala Gln Ile Pro Pro Ile Glu Lys Met Asp Ala
 35 40 45
 Ser Leu Ser Met Leu Ala Asn Cys Glu Lys Leu Ser Leu Ser Thr Asn
 50 55 60
 Cys Ile Glu Lys Ile Ala Asn Leu Asn Gly Leu Lys Asn Leu Arg Ile
 65 70 75 80
 Leu Ser Leu Gly Arg Asn Asn Ile Lys Asn Leu Asn Gly Leu Glu Ala
 85 90 95
 Val Gly Asp Thr Leu Glu Glu Leu Trp Ile Ser Tyr Asn Phe Ile Glu
 100 105 110
 Lys Leu Lys Gly Ile His Ile Met Lys Lys Leu Lys Ile Leu Tyr Met
 115 120 125
 Ser Asn Asn Leu Val Lys Asp Trp Ala Glu Phe Val Lys Leu Ala Glu
 130 135 140
 Leu Pro Cys Leu Glu Asp Leu Val Phe Val Gly Asn Pro Leu Glu Glu
 145 150 155 160
 Lys His Ser Ala Glu Asn Asn Trp Ile Glu Glu Ala Thr Lys Arg Val
 165 170 175
 Pro Lys Leu Lys Lys Leu Asp Gly Thr Pro Val Ile Lys Gly Asp Glu
 180 185 190
 Glu Glu Asp Asn
 195

<210> 3503

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3503

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 120
 aatgcccaga gattagcgga gaagctccga gcccgaaac gggaacaaga cacaagaag
 180
 gagccgggtg ccacaaacgc tgttcagcgg agagtgaag aaatagtgcg gttcacacgg
 240
 cagctgcagc gagtccacc caacgtgctt gctaaggcac tgaccggagg aattctccac
 300
 caggacaaga accttgtggt catcaataag ccttacggtc tccctgtgca tgggtggcct
 360
 ggggtccagc tctgcatcac tgatgtacta cctatcctgg caaagatgct tcattggccac
 420
 aaggcagagc ctttgcattt gtgccaccgg ctggacaagg aaaccacagg tgtaattggtg
 480
 ttgcttggg acaaggacat ggcacatcaa gtccaagagt tgtttagaac cgtcagggtg
 540
 gtgaagaagt actgggcat cactgtgcat gtccccatgc cctcagcagg agtcgtggac
 600
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 ccgagctccc gcatggacga tgggaaaatg gtgaaagtgc ggcgcagccg gaatgcgcaa
 720
 gttgctgtaa ctcatgacca ggtgctcagc agcactctct cctccgacct cgtggagctc
 780
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 840
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 857

<210> 3504

<211> 285

<212> PRT

<213> Homo sapiens

<400> 3504

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Gln	Gly	Cys	Gly	Ser	Leu	Phe	Thr	Leu	Val	Ser	Lys	Pro	Phe	Cys	Ala
		20						25					30		
Ala	Ala	Ala	Ala	Ser	Thr	Ala	Ile	Asn	Ala	Gln	Arg	Leu	Ala	Glu	Lys
		35				40						45			
Leu	Arg	Ala	Gln	Lys	Arg	Glu	Gln	Asp	Thr	Lys	Lys	Glu	Pro	Val	Ser
		50				55				60					
Thr	Asn	Ala	Val	Gln	Arg	Arg	Val	Gln	Glu	Ile	Val	Arg	Phe	Thr	Arg
65				70						75				80	
Gln	Leu	Gln	Arg	Val	His	Pro	Asn	Val	Leu	Ala	Lys	Ala	Leu	Thr	Arg
				85				90						95	
Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
		100						105				110			
Gly	Leu	Pro	Val	His	Gly	Gly	Pro	Gly	Val	Gln	Leu	Cys	Ile	Thr	Asp
		115					120					125			
Val	Leu	Pro	Ile	Leu	Ala	Lys	Met	Leu	His	Gly	His	Lys	Ala	Glu	Pro

130	135	140
Leu His Leu Cys His Arg Leu Asp Lys Glu Thr Thr Gly Val Met Val		
145	150	155
Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg		160
	165	170
Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro		175
	180	185
Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly		190
	195	200
Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg		205
	210	215
Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln		220
225	230	235
Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala		240
	245	250
Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val		255
	260	265
His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp		270
	275	280
		285

<210> 3505

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 3505

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120
cttgtgcgat ccctgggctc tgcggagaag gaaccggagc agccccgggc cctgtggagg
180
aagggttggtg acttctctgt gaaggccatc atgcgcacca tgtggttcgc cggcggttc
240
caccgggttg ccgtgaagg ggcgcaggcg ctgccaccg aggcggccat cctcagctc
300
gcgcctcact cgtcctaact cgacgccatc cctgtgacca tgacgatgac ctccatcgtg
360
atgaagacag agagcagaga catcccgatc tggggaactc tgatccagta tatacggcct
420
gtgttcctgt cccggtcaga ccaggattct cgcaggaaaa cagtagaaga aatcaagaga
480
cggggcgcat ccaacggaaa gtggccacag ataattgattt ttccagaagg aacttgtaca
540
aacaggacct gcctaattac cttcaaaact ggtgcattca tccctggagc gccctgccac
600
cctgggggttt tacgatatcc aaataaactg gacaccatca catggacgtg gcaaggacct
660
ggagcgcctgt aaatcctgtg gctcacgctg tgtcagtttc acaaccaagt ggaaatcgag
720
ttccttctgt tgtacagccc ttctgaggag gagaagagga accccgcgct gtatgccagc
780
aacgtgcggc gagtcattgc cgaggccttg ggtgtctcgc tgactgacta cacgttcgag
840

gactgccagc tggccctggc ggaaggacag ctccgtctcc cgcgtgacac ttgcctttta
 900
 gaatttgcca ggctcgtgcy gggcctcggg ctaaaaccag aaaagcttga aaaagatctg
 960
 gacagatact cagaaagagc caggatgaag ggaggagaga agataggtat tgcggagttt
 1020
 gccgcctccc tggaagtcgc cgtttctgac ttgctggaag acatgttttc actgttcgac
 1080
 gagagcgcca gcggcgaggt ggacctgcga gagtgtgtgg ttgcctgtgc tgcgtctgac
 1140
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 1200
 gacggcagcg tcggcgaagg tgacctgtcc tgcacctca agacggccct ggggggtggca
 1260
 gagctcactg tgaccgacct attccgagcc attgaccaag agggagaagg gaagatcaca
 1320
 ttctgtgact tccacaggtt tgcagaaatg taccctgcct tcgcagagga atacctgtac
 1380
 ccggatcaga cacatttcga aagctgtgca gagacctcac ctgcgccaat cccaaacggc
 1440
 ttctgtgccc atttcagccc gaaaaactca gacgctgggc ggaagcctgt tcgcaagaag
 1500
 ctggattagg acccagggtt gcggagagac gcggccctc ccgcgtggac atcaccgcca
 1560
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 1612

<210> 3506

<211> 502

<212> PRT

<213> Homo sapiens

<400> 3506

Val	His	Glu	Leu	His	Leu	Ser	Ala	Leu	Gln	Lys	Ala	Gln	Val	Ala	Leu
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Met	Thr	Leu	Thr	Leu	Phe	Pro	Val	Arg	Leu	Leu	Val	Ala	Ala	Ala	Met
			20					25					30		
Met	Leu	Leu	Ala	Trp	Pro	Leu	Ala	Leu	Val	Ala	Ser	Leu	Gly	Ser	Ala
			35				40					45			
Glu	Lys	Glu	Pro	Glu	Gln	Pro	Pro	Ala	Leu	Trp	Arg	Lys	Val	Val	Asp
			50			55					60				
Phe	Leu	Leu	Lys	Ala	Ile	Met	Arg	Thr	Met	Trp	Phe	Ala	Gly	Gly	Phe
65					70					75				80	
His	Arg	Val	Ala	Val	Lys	Gly	Arg	Gln	Ala	Leu	Pro	Thr	Glu	Ala	Ala
				85				90						95	
Ile	Leu	Thr	Leu	Ala	Pro	His	Ser	Ser	Tyr	Phe	Asp	Ala	Ile	Pro	Val
			100					105					110		
Thr	Met	Thr	Met	Ser	Ser	Ile	Val	Met	Lys	Thr	Glu	Ser	Arg	Asp	Ile
			115				120					125			
Pro	Ile	Trp	Gly	Thr	Leu	Ile	Gln	Tyr	Ile	Arg	Pro	Val	Phe	Val	Ser
			130				135				140				
Arg	Ser	Asp	Gln	Asp	Ser	Arg	Arg	Lys	Thr	Val	Glu	Glu	Ile	Lys	Arg
145					150					155				160	
Arg	Ala	Gln	Ser	Asn	Gly	Lys	Trp	Pro	Gln	Ile	Met	Ile	Phe	Pro	Glu


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      165              170              175
Gly Thr Cys Thr Asn Arg Thr Cys Leu Ile Thr Phe Lys Pro Gly Ala
      180              185              190
Phe Ile Pro Gly Ala Pro Val His Pro Gly Val Leu Arg Tyr Pro Asn
      195              200              205
Lys Leu Asp Thr Ile Thr Trp Thr Trp Gln Gly Pro Gly Ala Leu Glu
      210              215              220
Ile Leu Trp Leu Thr Leu Cys Gln Phe His Asn Gln Val Glu Ile Glu
      225              230              235
Phe Leu Pro Val Tyr Ser Pro Ser Glu Glu Lys Arg Asn Pro Ala
      245              250              255
Leu Tyr Ala Ser Asn Val Arg Arg Val Met Ala Glu Ala Leu Gly Val
      260              265              270
Ser Val Thr Asp Tyr Thr Phe Glu Asp Cys Gln Leu Ala Leu Ala Glu
      275              280              285
Gly Gln Leu Arg Leu Pro Ala Asp Thr Cys Leu Leu Glu Phe Ala Arg
      290              295              300
Leu Val Arg Gly Leu Gly Leu Lys Pro Glu Lys Leu Glu Lys Asp Leu
      305              310              315
Asp Arg Tyr Ser Glu Arg Ala Arg Met Lys Gly Gly Glu Lys Ile Gly
      325              330              335
Ile Ala Glu Phe Ala Ala Ser Leu Glu Val Pro Val Ser Asp Leu Leu
      340              345              350
Glu Asp Met Phe Ser Leu Phe Asp Glu Ser Gly Ser Gly Glu Val Asp
      355              360              365
Leu Arg Glu Cys Val Val Ala Leu Ser Val Val Cys Trp Pro Ala Arg
      370              375              380
Thr Leu Asp Thr Ile Gln Leu Ala Phe Lys Met Tyr Gly Ala Gln Glu
      385              390              395
Asp Gly Ser Val Gly Glu Gly Asp Leu Ser Cys Ile Leu Lys Thr Ala
      405              410              415
Leu Gly Val Ala Glu Leu Thr Val Thr Asp Leu Phe Arg Ala Ile Asp
      420              425              430
Gln Glu Glu Lys Gly Lys Ile Thr Phe Ala Asp Phe His Arg Phe Ala
      435              440              445
Glu Met Tyr Pro Ala Phe Ala Glu Glu Tyr Leu Tyr Pro Asp Gln Thr
      450              455              460
His Phe Glu Ser Cys Ala Glu Thr Ser Pro Ala Pro Ile Pro Asn Gly
      465              470              475
Phe Cys Ala Asp Phe Ser Pro Glu Asn Ser Asp Ala Gly Arg Lys Pro
      485              490              495
Val Arg Lys Lys Lys Leu Asp
      500

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<210> 3507

<211> 885

<212> DNA

<213> Homo sapiens

<400> 3507

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120

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cgagcccgc ccccgccatc cgtgctcaag tcccactcgc tgtagtcatt gttgatgctg
 180
 acctggggcca tggccccgag agccttcttc ctgcaaggtc tgtgggttct gccttacaac
 240
 cacatgcctc agggagctga gcaacaccca cctgtttggg gctgttagct taggactctt
 300
 ctcaaacctgc tctttctccc tgatgggctg tgccagaggc ggttgctatg tgaggaggcc
 360
 atcgctgtct acacctttgg cactgcatt gccttcttaa tcatcattgg cgaccagcag
 420
 gacaagatta tagctgtgat ggcgaaagag cggagggggg ccagcgggccc ttggtacaca
 480
 gaccgcaagt tcaccatcag cctcactgcc ttcctcttca tctcgccct ctccatcccc
 540
 agggagattg gtttccagaa atatgccagc ttcctgagcg tcgtgggtac ctggtacgtc
 600
 acagccatcg ttatcatcaa gtacatctgg ccagataaag agatgacccc agggaacatc
 660
 ctgaccaggc cggttctctg gatggctgtg ttcaatgcc a tgcccaccat ctgcttcgga
 720
 ttctcagtc acgtcagcag tctgcccgtc ttcaacagca tgcagcagcc tgaagtgaag
 780
 acctgggggtg gagtgggtgac agctgccatg gtcatagcc tcgctgtcta catggggaca
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 885

<210> 3508

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3508

Leu	Arg	Thr	Leu	Leu	Asn	Leu	Leu	Phe	Leu	Pro	Asp	Gly	Leu	Cys	Gln
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Arg	Arg	Leu	Leu	Cys	Glu	Val	Ala	Ile	Ala	Val	Tyr	Thr	Phe	Gly	Thr
			20					25					30		
Cys	Ile	Ala	Phe	Leu	Ile	Ile	Ile	Gly	Asp	Gln	Gln	Asp	Lys	Ile	Ile
		35				40						45			
Ala	Val	Met	Ala	Lys	Glu	Pro	Glu	Gly	Ala	Ser	Gly	Pro	Trp	Tyr	Thr
	50				55					60					
Asp	Arg	Lys	Phe	Thr	Ile	Ser	Leu	Thr	Ala	Phe	Leu	Phe	Ile	Leu	Pro
65				70				75				80			
Leu	Ser	Ile	Pro	Arg	Glu	Ile	Gly	Phe	Gln	Lys	Tyr	Ala	Ser	Phe	Leu
			85				90					95			
Ser	Val	Val	Gly	Thr	Trp	Tyr	Val	Thr	Ala	Ile	Val	Ile	Ile	Lys	Tyr
		100					105					110			
Ile	Trp	Pro	Asp	Lys	Glu	Met	Thr	Pro	Gly	Asn	Ile	Leu	Thr	Arg	Pro
	115				120						125				
Ala	Ser	Trp	Met	Ala	Val	Phe	Asn	Ala	Met	Pro	Thr	Ile	Cys	Phe	Gly
	130				135				140						
Phe	Gln	Cys	His	Val	Ser	Ser	Val	Pro	Val	Phe	Asn	Ser	Met	Gln	Gln
145			150						155				160		
Pro	Glu	Val	Lys	Thr	Trp	Gly	Gly	Val	Val	Thr	Ala	Ala	Met	Val	Ile

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                165                170                175
Ala Leu Ala Val Tyr Met Gly Thr Gly Ile Cys Gly Phe Leu Thr Phe
                180                185                190
Gly Ala Ala Val Asp Pro Asp
                195

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<210> 3509

<211> 331

<212> DNA

<213> Homo sapiens

<400> 3509

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120
gcctctgtcgc acggctcccc gaccgagggg gagctcccca cgcacgagca ggtcttcctg
180
agccccccac ctcctttaag ccccgagggg cctgggttgc cccagaagtt ggaggagcgc
240
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331

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<210> 3510

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3510

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Leu Val His Arg Thr Met Ala Gln Pro Pro Val His Asp Tyr Val Pro
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Val Ser Trp Thr Ala Leu Val His Val Lys Ala Glu Tyr Phe Arg Ser
20      25      30
Leu Ala His Tyr His Val Ala Met Ala Leu Cys Asp Gly Ser Pro Thr
35      40      45
Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro
50      55      60
Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg
65      70      75      80
Arg Gln Leu Gly Lys Ala Pro Met Gly Gly Val Pro Trp Gly Ser Asp
85      90      95
Gly His Gln Arg Trp Gln Gly Val Pro His His Pro His Ala
100      105      110

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<210> 3511

<211> 3319

<212> DNA

<213> Homo sapiens

<400> 3511

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60

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120
gatatgtgacc gtaattcatc agaagaagga actgcagaga aatccaagaa actgaggact
180
acaaatgagc attctcagac ttgtgattgg ggtaatctcc ttcaggacat tattctccaa
240
gtattttaaatt atttgctctc tcttgaccgg gctcatgctt cacaagtttg ccgcaactgg
300
aaccaggtat ttcacatgcc tgacttgtgg agatgttttg aatttgaact gaatcagcca
360
gctacatctt atttgaaagc taccatcca gagctgatca aacagattat taaaagacat
420
tcaaaccatc tacaatatgt cagcttcaag gtggacagca gcaaggaatc agctgaagca
480
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<210> 3516
 <211> 547
 <212> PRT
 <213> Homo sapiens

<400> 3516
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 Asp Gln Ile Gln Thr Leu Met Leu Gln Asn Arg Thr Leu Leu Glu Gln
 35 40 45
 Asn Met Glu Ser Lys Asp Leu Phe His Val Glu Gln Arg Gln Tyr Ile
 50 55 60
 Asp Lys Leu Asn Glu Leu Arg Arg Gln Lys Glu Lys Leu Glu Glu Lys
 65 70 75 80
 Ile Met Asp Gln Tyr Lys Phe Tyr Asp Pro Ser Pro Pro Arg Arg Arg
 85 90 95
 Gly Asn Trp Ile Thr Leu Lys Met Arg Lys Leu Ile Lys Ser Lys Lys
 100 105 110
 Asp Ile Asn Arg Glu Arg Gln Lys Ser Leu Thr Leu Thr Pro Thr Arg
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 130 135 140
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 Gly Thr Lys Lys Ser Ser Thr Met Asn Asp Leu Val Gln Ser Met Val
 165 170 175
 Leu Ala Gly Gln Trp Thr Gly Ser Thr Glu Asn Leu Glu Val Pro Asp
 180 185 190
 Asp Ile Ser Thr Gly Lys Arg Arg Lys Glu Leu Gly Ala Met Ala Phe
 195 200 205
 Ser Thr Thr Ala Ile Asn Phe Ser Thr Val Asn Ser Ser Ala Gly Phe
 210 215 220
 Arg Ser Lys Gln Leu Val Asn Asn Lys Asp Thr Thr Ser Phe Glu Asp
 225 230 235 240
 Ile Ser Pro Gln Gly Val Ser Asp Asp Ser Ser Thr Gly Ser Arg Val
 245 250 255
 His Ala Ser Arg Pro Ala Ser Leu Asp Ser Gly Arg Thr Ser Thr Ser
 260 265 270
 Asn Ser Asn Asn Asn Ala Ser Leu His Glu Val Lys Ala Gly Ala Val

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      275              280              285
Asn Asn Gln Ser Arg Pro Gln Ser His Ser Ser Gly Glu Phe Ser Leu
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Leu His Asp His Glu Ala Trp Ser Ser Ser Gly Ser Ser Pro Ile Gln
 305              310              315
Tyr Leu Lys Arg Gln Thr Arg Ser Ser Pro Val Leu Gln His Lys Ile
      325              330              335
Ser Glu Thr Leu Glu Ser Arg His His Lys Ile Lys Thr Gly Ser Pro
      340              345              350
Gly Ser Glu Val Val Thr Leu Gln Gln Phe Leu Glu Ser Asn Lys
      355              360              365
Leu Thr Ser Val Gln Ile Lys Ser Ser Ser Gln Glu Asn Leu Leu Asp
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Glu Val Met Lys Ser Leu Ser Val Ser Ser Asp Phe Leu Gly Lys Asp
 385              390              395
Lys Pro Val Ser Cys Gly Leu Ala Arg Ser Val Ser Gly Lys Thr Pro
      405              410              415
Gly Asp Phe Tyr Asp Arg Arg Thr Thr Lys Pro Glu Phe Leu Arg Pro
      420              425              430
Gly Pro Arg Lys Thr Glu Asp Thr Tyr Phe Ile Ser Ser Ala Gly Lys
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Pro Thr Pro Gly Thr Gln Gly Lys Ile Lys Leu Val Lys Glu Ser Ser
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Leu Ser Arg Gln Ser Lys Asp Ser Asn Pro Tyr Ala Thr Leu Pro Arg
 465              470              475
Ala Ser Ser Val Ile Ser Thr Ala Glu Gly Thr Thr Arg Arg Thr Ser
      485              490              495
Ile His Asp Phe Leu Thr Lys Asp Ser Arg Leu Pro Ile Ser Val Asp
      500              505              510
Ser Pro Pro Ala Ala Ala Asp Ser Asn Thr Thr Ala Ala Ser Asn Val
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Gln Ser Ser
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<210> 3517

<211> 342

<212> DNA

<213> Homo sapiens

<400> 3517

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240
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342

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<210> 3518
 <211> 99
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Arg Met Pro Asp Arg Pro Thr Ser Arg Pro Leu Leu Val Arg Ala
 50 55 60
 Ser Leu Ser Pro Ser Gly Leu Gly Ala Cys Asp Thr Ala Leu Arg Pro
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 Thr Arg Ser Trp Gly Ala Cys Trp Gln Trp Leu Gly His Ser Cys Ser
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 Gly Gln Gly

<210> 3519
 <211> 2207
 <212> DNA
 <213> Homo sapiens

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 480
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<210> 3520

<211> 303

<212> PRT

<213> Homo sapiens

<400> 3520

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Val Val Asn Leu Pro Pro Ala Gln Leu Ser Ser Ser Asp Glu Glu Thr
35      40      45
Arg Glu Glu Leu Ala Arg Ile Gly Leu Val Pro Pro Glu Glu Phe
50      55      60
Ala Asn Gly Val Leu Leu Ala Thr Pro Leu Ala Gly Pro Gly Pro Ser
65      70      75      80
Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro
85      90      95
Pro Pro Ala Pro Glu Ser Ala Ala Asp Ser Gly Val Glu Glu Ala Asp
100     105     110
Thr Arg Ser Ser Asp Pro His Leu Glu Thr Thr Ser Thr Ile Ser
115     120     125
Thr Val Ser Ser Met Ser Thr Leu Ser Ser Glu Ser Gly Glu Leu Thr
130     135     140
Asp Thr His Thr Ser Phe Ala Asp Gly His Thr Phe Leu Leu Glu Lys
145     150     155     160
Pro Pro Val Pro Pro Lys Pro Lys Leu Lys Ser Pro Leu Gly Lys Gly
165     170     175
Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu
180     185     190
Leu Met Ala Gln Gln His His Ala Ala Ser Ala Gly Leu Ala Ser Ala
195     200     205
Ala Gly Pro Ala Arg Pro Arg Tyr Leu Phe Gln Arg Arg Ser Lys Leu
210     215     220
Trp Gly Asp Pro Val Glu Ser Arg Gly Leu Pro Gly Pro Glu Asp Asp
225     230     235     240
Lys Pro Thr Val Ile Ser Glu Leu Ser Ser Arg Leu Gln Gln Leu Asn
245     250     255
Lys Asp Thr Arg Ser Leu Gly Glu Glu Pro Val Gly Gly Leu Gly Ser
260     265     270
Leu Leu Asp Pro Ala Lys Lys Ser Pro Ile Ala Ala Ala Arg Ser Pro
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Leu Ser Ser Leu Gly Leu Gly Gly Trp Tyr Val Asp Ala Thr Ser
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<210> 3521

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3521

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240

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<210> 3522

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3522

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 Gln His Ala Asp Gln Gly Pro Pro His Leu Asp Leu His Gln
 35 40 45
 Asp Leu Gln Ala Glu Pro Leu Arg Pro Ala Gly Leu Gly Gly Leu
 50 55 60
 Leu Arg Cys Gly Leu Pro Ser Glu Gln Arg Ala Ala Gly Glu Ala Arg
 65 70 75 80
 Gly Leu His Leu Leu Gln Asp Pro Thr Pro Gly Arg Leu Cys Gln Ala
 85 90 95
 Pro Ala Gly Pro Pro Gly Gly Gly His Gly Pro Ala Gly Arg Gly Gln
 100 105 110
 Pro Ser Arg His Arg Pro Gly Glu Pro Gln Gly Gly Arg Gly Xaa
 115 120 125
 Pro Asp Pro Ser Thr Pro Ser Val Arg Gly Ser Gln Arg Thr Ala Ser
 130 135 140
 Pro Gly Arg Ala Ser Pro Gly Gly Cys Pro Glu Ala Thr Gly Trp Cys
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 Cys Arg His Thr Arg Ser Ala Pro Thr Pro Leu Leu Pro Pro Cys Pro
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 Ser Pro Ala Ser Ser
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<210> 3523

<211> 2614

<212> DNA

<213> Homo sapiens

<400> 3523

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<210> 3524

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3524

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			20				25						30		
Glu	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Ser	Asp	Phe
			35				40					45			
Ser	Arg	Arg	His	Pro	Gly	Gly	Ser	Arg	Val	Ile	Ser	His	Tyr	Ala	Gly
			50			55				60					
Gln	Asp	Ala	Thr	Asp	Pro	Phe	Val	Ala	Phe	His	Ile	Asn	Lys	Gly	Leu
			65			70			75					80	
Val	Lys	Lys	Tyr	Met	Asn	Ser	Leu	Leu	Ile	Gly	Glu	Leu	Ser	Pro	Glu
			85						90					95	
Gln	Pro	Ser	Phe	Glu	Pro	Thr	Lys	Asn	Lys	Glu	Leu	Thr	Asp	Glu	Phe
			100				105						110		
Arg	Glu	Leu	Arg	Ala	Thr	Val	Glu	Arg	Met	Gly	Leu	Met	Lys	Ala	Asn

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      165              170              175
Leu Gln His Asp Phe Gly His Leu Ser Val Phe Ser Thr Ser Lys Trp
      180              185              190
Asn His Leu Leu His His Phe Val Ile Gly His Leu Lys Gly Ala Pro
      195              200              205
Ala Ser Trp Trp Asn His Met His Phe Gln His His Ala Lys Pro Asn
      210              215              220
Cys Phe Arg Lys Asp Pro Asp Ile Asn Met His Pro Phe Phe Phe Ala
225              230              235              240
Leu Gly Lys Ile Leu Ser Val Glu Leu Gly Lys Gln Lys Lys Lys Tyr
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Met Pro Tyr Asn His Gln His Lys Tyr Phe Phe Leu Ile Gly Pro Pro
      260              265              270
Ala Leu Leu Pro Leu Tyr Phe Gln Trp Tyr Ile Phe Tyr Phe Val Ile
      275              280              285
Gln Arg Lys Lys Trp Val Asp Leu Val Trp Met Ile Thr Phe Tyr Val
      290              295              300
Arg Phe Phe Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu
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Gly Leu Phe Phe Ile Val Arg Phe Leu Glu Ser Asn Trp Phe Val Trp
      325              330              335
Val Thr Gln Met Asn His Ile Pro Met His Ile Asp His Asp Arg Asn
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Met Asp Trp Val Ser Thr Gln Leu Gln Ala Thr Cys Asn Val His Lys
      355              360              365
Ser Ala Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
      370              375              380
His His Leu Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala
385              390              395              400
Pro Leu Val Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser
      405              410              415
Lys Pro Leu Leu Ser Ala Phe Ala Asp Ile Ile His Ser Leu Lys Glu
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Ser Gly Gln Leu Trp Leu Asp Ala Tyr Leu His Gln
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<210> 3525

<211> 1116

<212> DNA

<213> Homo sapiens

<400> 3525

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120

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180

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<210> 3526

<211> 304

<212> PRT

<213> Homo sapiens

<400> 3526

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 Asp Trp Ile Lys Arg Cys Gln Glu Ala Gln Asn Gly Ser Glu Ser Glu
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 Leu Gln Pro Val Lys Leu Ser Arg Ala Glu Leu Tyr Lys Glu Pro Thr

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Gln Ala Trp Leu Pro Ala Gly Val Arg Val Pro Leu His Gln Val Pro		
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Tyr Ala Val Lys Gly Cys Phe Arg Phe Leu Pro Pro Ala Gln Val Thr		
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<211> 281

<212> PRT

<213> Homo sapiens

<400> 3528

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<210> 3529

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<212> DNA

<213> Homo sapiens

<400> 3529

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<211> 206

<212> PRT

<213> Homo sapiens

<400> 3530

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Gly	Lys	Asn	Val	Thr	Leu	Glu	Glu	Asp	Gly	Thr	Arg	Ala	Val	Arg	Ala
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<211> 879

<212> DNA

<213> Homo sapiens

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<211> 254

<212> PRT

<213> Homo sapiens

<400> 3532

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<212> DNA

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<210> 3534

<211> 313

<212> PRT

<213> Homo sapiens

<400> 3534

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Lys His Gly Ala Ile Pro Gly Gly Leu Ser Ile Gly Pro Gly Lys
50      55      60
Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser
65      70      75
Glu Ser Pro Ala Ser Pro Pro Val Ala Val Pro His Ser Trp Ser Arg
85      90      95
Ala Lys Ser Asp Ser Asp Lys Ile Ser Asn Gly Ser Ser Ile Asn Trp
100     105
Pro Pro Glu Phe His Pro Gly Val Pro Trp Lys Gly Leu Gln Asn Ile
115     120     125
Asp Pro Glu Asn Asp Pro Asp Val Thr Pro Gly Ser Val Pro Thr Gly
130     135     140
Pro Thr Ile Asn Thr Thr Ile Gln Asp Val Asn Arg Tyr Leu Leu Lys
145     150     155
Ser Gly Gly Ser Ser Pro Pro Ser Ser Gln Asn Ala Thr Leu Pro Ser
165     170     175
Ser Ser Ala Trp Pro Leu Ser Ala Ser Gly Tyr Ser Ser Ser Phe Ser
180     185     190
Ser Ile Ala Ser Ala Pro Ser Val Ala Gly Lys Leu Ser Asp Ile Lys
195     200     205
Ser Thr Trp Ser Ser Gly Pro Thr Ser His Thr Gln Ala Ser Leu Ser
210     215     220
His Glu Leu Trp Lys Val Pro Arg Asn Ser Thr Ala Pro Thr Arg Pro
225     230     235     240
Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Thr Trp Gly Ala Ser
245     250     255
Pro Leu Gly Trp Thr Ser Ser Tyr Ser Ser Gly Ser Ala Trp Ser Thr
260     265     270
Asp Thr Ser Gly Arg Thr Ser Ser Trp Leu Val Leu Arg Asn Leu Thr
275     280     285
Pro Gln Val Gln Tyr Gly Ala Pro Ala Ser Leu Ser Met Ile Gln Gly
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Gly Phe Pro Leu Gly Pro Gln Cys Arg
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<210> 3535

<211> 723

<212> DNA

<213> Homo sapiens

<400> 3535
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 723

<210> 3536
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 3536
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 Arg Val Ser Leu Leu Leu Tyr Tyr Ile Ile His Gln Glu Glu Ile
 35 40 45
 Cys Ser Ser Lys Leu Asn Met Ser Asn Lys Glu Tyr Lys Phe Tyr Leu
 50 55 60
 His Ser Leu Leu Ser Leu Arg Gln Asp Glu Asp Ser Ser Phe Leu Ser
 65 70 75 80
 Gln Asn Glu Thr Glu Asp Ile Leu Ala Phe Thr Arg Gln Tyr Phe Asp
 85 90 95
 Thr Ser Gln Ser Gln Cys Met Glu Thr Lys Thr Leu Gln Lys Lys Ser
 100 105 110
 Gly Ile Val Ser Ser Glu Gly Ala Asn Glu Ser Thr Leu Pro Gln Leu
 115 120 125
 Ala Ala Met Ile Ile Thr Leu Ser Leu Gln Gly Val Cys Leu Gly Gln
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<211> 714			
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600			cggtctctga gggttggaa
aagggtccct	cagacgtgcc	cctaccacag	aggcacagaa
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Leu Lys Asp Pro Ser Ser Asn Pro Ala Gly Pro Arg Ala Thr Ala Gly			
35	40	45	
Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Thr Arg Ala Arg			
50	55	60	
Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly			
65	70	75	80
His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg			
85	90	95	
Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met			

	100		105		110										
Leu	Pro	Ser	Pro	Pro	Thr	Gln	Gly	His	Pro	Thr	Ala	Pro	Pro	Cys	Pro
	115		120		125										
Cys	Pro	Ser	Pro	Ser	Leu	Glu	Val	Pro	Cys	Pro	Ala	Gly	Pro	Val	Asn
	130		135		140										
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<210> 3539

<211> 818

<212> DNA

<213> Homo sapiens

<400> 3539

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 180
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 240
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 300
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<210> 3540

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3540

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Leu	Pro	Val	Cys	Gly	Arg	Pro	Val	Thr	Pro	Ile	Ala	Gln	Asn	Gln	Thr
				20				25				30			
Thr	Leu	Gly	Ser	Ser	Arg	Ala	Lys	Leu	Gly	Asn	Phe	Pro	Trp	Gln	Ala

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      35              40              45
Phe Thr Ser Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg
 50              55              60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
 65              70              75              80
Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile
      85              90              95
Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
      100              105              110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
      115              120              125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
      130              135              140
Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
      145              150              155              160
Gly Tyr Val Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Gly
      165              170              175
Leu Lys Tyr Ser
      180

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<210> 3541

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3541

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<210> 3542

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3542

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      20             25             30
Gln Ala Gly Asp Phe Glu Ala Ala Glu Arg His Cys Met Gln Leu Trp
      35             40             45
Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Leu Ser Ser Ile
      50             55             60
His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu
      65             70             75             80
Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly
      85             90             95
Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr
      100            105            110
Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn
      115            120            125
Ala Ala Ala Ala Leu Val Ala Ala Gly Asp Met Glu Gly Ala Val Gln
      130            135            140
Ala Tyr Val Ser Ala Leu Gln Pro Gly
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<210> 3543

<211> 1206

<212> DNA

<213> Homo sapiens

<400> 3543

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660

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<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

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		20						25				30			
Lys	Ile	Val	Leu	Phe	Pro	His	Tyr	Glu	Glu	Gly	His	Ile	Pro	Gly	Ile
	35					40					45				
Leu	Ile	Ile	Ile	Phe	Tyr	Gly	Ile	Ser	Ile	Phe	Cys	Leu	Val	Ala	Leu
	50				55					60					
Val	Arg	Ala	Ser	Ile	Thr	Asp	Pro	Gly	Arg	Leu	Pro	Glu	Asn	Pro	Lys
65				70					75				80		
Ile	Pro	His	Gly	Glu	Arg	Glu	Phe	Trp	Glu	Leu	Cys	Asn	Lys	Cys	Asn
		85						90				95			
Leu	Met	Arg	Pro	Lys	Arg	Ser	His	His	Cys	Ser	Arg	Cys	Gly	His	Cys
		100						105				110			
Val	Arg	Arg	Met	Asp	His	His	Cys	Pro	Trp	Ile	Asn	Asn	Cys	Val	Gly
	115				120						125				
Glu	Asp	Asn	His	Trp	Leu	Phe	Leu	Gln	Leu	Cys	Phe	Tyr	Thr	Glu	Leu
130					135						140				
Leu	Thr	Cys	Tyr	Ala	Leu	Met	Phe	Ser	Phe	Cys	His	Tyr	Tyr	Tyr	Phe
145				150					155						
Leu	Pro	Leu	Lys	Lys	Arg	Asn	Leu	Asp	Leu	Phe	Val	Phe	Arg	His	Glu
		165						170				175			
Leu	Ala	Ile	Met	Arg	Leu	Ala	Ala	Phe	Met	Gly	Ile	Thr	Met	Leu	Val
	180							185				190			
Gly	Ile	Thr	Gly	Leu	Phe	Tyr	Thr	Gln	Leu	Ile	Gly	Ile	Ile	Thr	Pro
	195						200				205				
Cys	Ser	Leu	Ile	Leu	Leu	Lys	Cys	Gly	Ser	Val	Ser	Asn	Asn	Ser	Leu

210	215	220
Gly Asp Leu Met Lys Ile Ser Glu Thr Phe Ala Leu Arg Ile Pro Ser		
225	230	235
Phe Val Val Met Cys Pro Glu Asn Ser Ser Leu Arg Val Phe Asn Ser		240
	245	250
Val Lys Leu Leu Cys Leu Asp Ser Pro Leu Ile Gln Trp Ser Thr		255
	260	265
		270

Lys

<210> 3545

<211> 3657

<212> DNA

<213> Homo sapiens

<400> 3545

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<210> 3546

<211> 792

<212> PRT

<213> Homo sapiens

<400> 3546

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 Leu Ala Asp Pro Gly Trp Ala Ser Ile Ser Arg Gly Val Leu Val Cys
 35 40 45
 Asp Glu Cys Cys Ser Val His Arg Ser Leu Gly Arg His Ile Ser Ile
 50 55 60
 Val Lys His Leu Arg His Ser Ala Trp Pro Pro Thr Leu Leu Gln Met
 65 70 75 80
 Val His Thr Leu Ala Ser Asn Gly Ala Asn Ser Ile Trp Glu His Ser
 85 90 95
 Leu Leu Asp Pro Ala Gln Val Gln Ser Gly Arg Arg Lys Ala Asn Pro
 100 105 110
 Gln Asp Lys Val His Pro Ile Lys Ser Glu Phe Ile Arg Ala Lys Tyr
 115 120 125
 Gln Met Leu Ala Phe Val His Lys Leu Pro Cys Arg Asp Asp Asp Gly

2708

565 570 575
 Ser Val His Val Pro Ala Gly Leu Tyr Arg Ile Arg Lys Gly Val Ser
 580 585 590
 Ala Ser Ala Val Pro Phe Thr Pro Ser Ser Pro Leu Leu Ser Cys Ser
 595 600 605
 Gln Glu Gly Ser Arg His Thr Ser Lys Leu Ser Arg His Gly Ser Gly
 610 615 620
 Ala Asp Ser Asp Tyr Glu Asn Thr Gln Ser Gly Asp Pro Leu Leu Gly
 625 630 635 640
 Leu Glu Gly Lys Arg Phe Leu Glu Leu Gly Lys Glu Glu Asp Phe His
 645 650 655
 Pro Glu Leu Glu Ser Leu Asp Gly Asp Leu Asp Pro Gly Leu Pro Ser
 660 665 670
 Thr Glu Asp Val Ile Leu Lys Thr Glu Gln Val Thr Lys Asn Ile Gln
 675 680 685
 Glu Leu Leu Arg Ala Ala Gln Glu Phe Lys His Asp Ser Phe Val Pro
 690 695 700
 Cys Ser Glu Lys Ile His Leu Ala Val Thr Glu Met Ala Ser Leu Phe
 705 710 715 720
 Pro Lys Arg Pro Ala Leu Glu Pro Val Arg Ser Ser Leu Arg Leu Leu
 725 730 735
 Asn Ala Ser Ala Tyr Arg Leu Gln Ser Glu Cys Arg Lys Thr Val Pro
 740 745 750
 Pro Glu Pro Gly Ala Pro Val Asp Phe Gln Leu Leu Thr Gln Gln Val
 755 760 765
 Ile Gln Cys Ala Tyr Asp Ile Ala Lys Ala Ala Lys Gln Leu Val Thr
 770 775 780
 Ile Thr Thr Arg Glu Lys Lys Gln
 785 790

<210> 3547

<211> 1039

<212> DNA

<213> Homo sapiens

<400> 3547

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 120
 agtcattgaaa taaaccaag gaaagttttt gaacttatgg gaagcattgt cactgagatt
 180
 gcttgtggac ggcagcacac ttctgctttt gttccttcat caggacgaat ttactctttt
 240
 gggcttgggt gtaatgggca gctgggaacc ggttaacaa gcaacaggaa aagccccttt
 300
 actgtaaaaa gaaattggta cccctataat gggcagtgtc taccagatat tgattctgaa
 360
 gaataattct gtgtaaaaag aattttctca gggggagatc aaagcttttc acattactct
 420
 agtccccaga actgtgggac accagatgac ttcagatgtc ccaatccgac aaagcagatc
 480
 tggacagtga atgaagctct aattcagaaa tggctgagct atccttctgg aaggtttcct
 540

gtggagatag ccaatgagat agatggaacg tttcttctct ctggttgccct aaatggaagt
 600
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 720
 cagcagggtg cagctagttt ggaaaagaat cttattccta aactgactag ctccttacct
 780
 gatgttgaag cattgaggtt ttatcttact ctaccagaat gtccctgat gagtgattcc
 840
 aacaatttca taacaatagc aattcccttt ggtacagctc ttgtgaacct agaaaaggca
 900
 ccactgaaag tacttgaaaa ctggtggtca gtacttgaac ctccactatt cctcaagata
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 1020
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 1039

<210> 3548

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3548

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Ala	Leu	Thr	Lys	Glu	Gly	Gly	Val	Phe	Thr	Phe	Gly	Ala	Gly	Gly	Tyr
			20					25					30		
Gly	Gln	Leu	Gly	His	Asn	Ser	Thr	Ser	His	Glu	Ile	Asn	Pro	Arg	Lys
		35				40						45			
Val	Phe	Glu	Leu	Met	Gly	Ser	Ile	Val	Thr	Glu	Ile	Ala	Cys	Gly	Arg
	50					55				60					
Gln	His	Thr	Ser	Ala	Phe	Val	Pro	Ser	Ser	Gly	Arg	Ile	Tyr	Ser	Phe
65				70						75				80	
Gly	Leu	Gly	Gly	Asn	Gly	Gln	Leu	Gly	Thr	Gly	Ser	Thr	Ser	Asn	Arg
			85					90						95	
Lys	Ser	Pro	Phe	Thr	Val	Lys	Gly	Asn	Trp	Tyr	Pro	Tyr	Asn	Gly	Gln
		100					105						110		
Cys	Leu	Pro	Asp	Ile	Asp	Ser	Glu	Glu	Tyr	Phe	Cys	Val	Lys	Arg	Ile
		115				120				125					
Phe	Ser	Gly	Gly	Asp	Gln	Ser	Phe	Ser	His	Tyr	Ser	Ser	Pro	Gln	Asn
	130				135					140					
Cys	Gly	Pro	Pro	Asp	Asp	Phe	Arg	Cys	Pro	Asn	Pro	Thr	Lys	Gln	Ile
145				150				155						160	
Trp	Thr	Val	Asn	Glu	Ala	Leu	Ile	Gln	Lys	Trp	Leu	Ser	Tyr	Pro	Ser
		165						170						175	
Gly	Arg	Phe	Pro	Val	Glu	Ile	Ala	Asn	Glu	Ile	Asp	Gly	Thr	Phe	Ser
		180					185					190			
Ser	Ser	Gly	Cys	Leu	Asn	Gly	Ser	Phe	Leu	Ala	Val	Ser	Asn	Asp	Asp
	195					200						205			
His	Tyr	Arg	Thr	Gly	Thr	Arg	Phe	Ser	Gly	Val	Asp	Met	Asn	Ala	Ala
	210				215						220				
Arg	Leu	Leu	Phe	His	Lys	Leu	Ile	Gln	Pro	Asp	His	Pro	Gln	Ile	Ser

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225                230                235                240
Gln Gln Val Ala Ala Ser Leu Glu Lys Asn Leu Ile Pro Lys Leu Thr
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Ser Ser Leu Pro Asp Val Glu Ala Leu Arg Phe Tyr Leu Thr Leu Pro
                260                265                270
Glu Cys Pro Leu Met Ser Asp Ser Asn Asn Phe Ile Thr Ile Ala Ile
                275                280                285
Pro Phe Gly Thr Ala Leu Val Asn Leu Glu Lys Ala Pro Leu Lys Val
                290                295                300
Leu Glu Asn Trp Trp Ser Val Leu Glu Pro Pro Leu Phe Leu Lys Ile
305                310                315                320
Val Glu Leu Phe Lys Glu Val Val Val His Leu Leu Lys Leu Tyr Lys
                325                330                335
Ile Gly Ile Pro Pro Ser Glu Arg Ile Ile
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<210> 3549

<211> 2542

<212> DNA

<213> Homo sapiens

<400> 3549

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120
agatatgaga aaattcatgg aagaagtaag gaaaaggaga gagctagtct agataaaaaa
180
agagataaag actacagaag gaaagagatc ttgccttttg aaaagatgaa ggaacaaagg
240
ttgagagaac atttagttcg ttttgaaagg ctgcgacgag caatggaact tcgaagacga
300
agagagattg cagagagaga gcgtcgagag cgagaacgca ttagaataat tcgtgaacgg
360
gaagaacggg aacgcttaca gagagagaga gagcgcttag aaattgaaa gcaaaaaacta
420
gagagagaga gaatggaacg cgaacgcttg gaaagggaac gcattcgtat tgaacaggaa
480
cgtcgtaaag aagctgaacg gattgctcga gaaagagagg aactcagaag gcaacaacag
540
cagcttcgtt atgaacaaga aaaaaggaaat tccttgaaac gccacgtga ttagatcatc
600
aggcgagatg atccttactg gagcgagaat aaaaagtgtg ctctagatag agatgcacga
660
tttgccatg gatccgacta ctctcgccaa cagaacagat ttaatgactt tgatcaccga
720
gagagggggc gggttctctga gagttcagca gtacagtett catcttttga aaggcgggat
780
cgcttttgtt gtcaaagtga ggggaaaaaa gcacgacctc ctgcacgaag ggaagatcca
840
agcttcgaaa gatatcccaa aaatttcagt gactccagaa gaaatgagcc tccaccacca
900
agaaatgaac ttagagaatc agacaggcga gaagtacgag gggagcgaga cgaaggagga
960

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acgggtgatta ttcattgacag gcttgatatt actcatccta gacatcctcg agaggcaggg
1020
cccaatcctt ccagaccac cagctggaaa agtgatggaa gcatgtccac tgacaaacgg
1080
gaaacaagag ttgaaaggcc agaaccgatct gggagagaag tatcagggca cagtgtgaga
1140
ggcgtctccc ctgggaatcg tagcagcgct tcgggggtacg ggagcagaga gggagacaga
1200
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1260
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1320
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1440
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1500
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1560
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1620
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1680
taacttttaa tagttttgtg tatcattcaa ctttttttct tgcagcaccg aggcacattt
1740
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1860
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1920
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1980
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2100
aattgtaaaa tgagaacoga ttttcagttt agtgtagcag cacactgtgt caggtttgca
2160
tggtatgaaa ccaaatagat tcatgaaacc ttggccatga ggtttgtttc acaaggttct
2220
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2280
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2340
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2400
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2520
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2542

<210> 3550
 <211> 500
 <212> PRT
 <213> Homo sapiens

<400> 3550

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          20          25          30
His Cys Arg Pro Ser Arg Arg Gly Arg Tyr Glu Lys Ile His Gly Arg
          35          40          45
Ser Lys Glu Lys Glu Arg Ala Ser Leu Asp Lys Lys Arg Asp Lys Asp
          50          55          60
Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg
65          70          75          80
Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu
          85          90          95
Leu Arg Arg Arg Arg Glu Ile Ala Glu Arg Glu Arg Arg Glu Arg Glu
          100          105          110
Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg
          115          120          125
Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg
          130          135          140
Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu
145          150          155          160
Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg
          165          170          175
Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu
          180          185          190
Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser
          195          200          205
Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly
          210          215          220
Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg
225          230          235          240
Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe
          245          250          255
Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg
          260          265          270
Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn
          275          280          285
Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu
          290          295          300
Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg
305          310          315          320
Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro
          325          330          335
Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp
          340          345          350
Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu
          355          360          365
Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

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      370              375              380
Gly Asn Arg Ser Ser Ala Ser Gly Tyr Gly Ser Arg Glu Gly Asp Arg
385              390              395              400
Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu
      405              410              415
Arg His Val Val Glu Arg His Gly Arg Asp Thr Ser Gly Pro Arg Lys
      420              425              430
Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg
      435              440              445
Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser
      450              455              460
Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser
465              470              475              480
Met Pro Arg Gly Ser Gly Ser Gly Phe Lys Pro Phe Lys Gly Gly Pro
      485              490              495
Pro Arg Arg Phe
      500

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<210> 3551

<211> 545

<212> DNA

<213> Homo sapiens

<400> 3551

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120
ttctctgtga ctggctataa attccatgca gtgctggaat gtgcttctca cagttagagt
180
gctgagcacc tgttttatatt cactctccct tgattcctgg ggtaaatccc atctccgcag
240
catgggctcc agttaaatc attagtgggc cagatgtgtg tcccctgtca gctggccaag
300
taacccccact gtttatcgac aggttctcag gaatcagata gctcgcagtc ggccaagaag
360
gacatgctgg ctgccttgaa gtccaggcag gaagctctgg aggaaacctc gcgtcagagg
420
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480
ttgaaattgg tggtgtctgt gatgtcactg atctttctga tgtcatttga tctttttgat
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gtcat
545

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<210> 3552

<211> 55

<212> PRT

<213> Homo sapiens

<400> 3552

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Pro His Cys Leu Ser Thr Gly Ser Gln Glu Ser Asp Ser Ser Gln Ser
1          5          10          15
Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu

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gaacagagggc gtccttgtgg cagtgtattg gggaaccact gaggcacag gaattagtgg
 1320
 cttaataact gcattgtggg agttttgaaa ctgtggagtc ctggctctgga accaagggggc
 1380
 tgggtctgct gagacaggtg actaggggtg ac
 1412

<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

Tyr	Thr	Val	Thr	Met	Asp	Val	His	Ser	Arg	Tyr	Arg	Thr	Glu	Ala	His
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Gln	Asp	Val	Val	Gly	Arg	Phe	Asn	Glu	Arg	Phe	Ile	Leu	Ser	Leu	Ala
		20						25					30		
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro
	35						40					45			
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro
50						55					60				
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu
65					70					75				80	
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys
				85					90					95	
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser
		100						105					110		
Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg
		115					120					125			
Gly	Lys	Ser	Ala	Ala	Leu	Gly	Leu	Ala	Ile	Ala	Gly	Ala	Val	Ala	Phe
	130					135					140				
Gly	Tyr	Ser	Asn	Ile	Phe	Val	Thr	Ser	Pro	Ser	Pro	Asp	Asn	Leu	His
145					150					155				160	
Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln
			165						170					175	
Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn
		180						185					190		
Lys	Ala	Val	Ile	Ile	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile
	195						200					205			
Gln	Tyr	Ile	His	Pro	Ala	Asp	Ala	Val	Lys	Leu	Gly	Gln	Ala	Glu	Leu
	210					215					220				
Val	Val	Ile	Asp	Glu	Ala	Ala	Ala	Ile	Pro	Leu	Pro	Leu	Val	Lys	Ser
225					230					235				240	
Leu	Leu	Gly	Pro	Tyr	Leu	Val	Phe	Met	Ala	Ser	Thr	Ile	Asn	Gly	Tyr
				245					250					255	
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg
		260						265					270		
Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr
		275					280					285			
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser
	290					295					300				
Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp
305					310					315				320	
Leu	Asn	Asp	Leu	Leu	Cys	Leu	Asp	Cys	Leu	Asn	Ile	Thr	Arg	Ile	Val

	325		330		335
Ser Gly Cys	Pro Leu	Pro Glu	Ala Cys	Glu Leu	Tyr Tyr Val Asn Arg
	340		345		350
Asp Thr Leu	Phe Cys	Tyr His	Lys Ala	Ser Glu	Val Phe Leu Gln Arg
	355		360		365
Leu Met Ala	Leu Tyr	Val Ala	Ser His	Tyr Lys	Asn Ser Pro Asn Asp
	370		375		380
Leu Gln Met	Leu Ser	Asp Ala	Pro Ser	His His	Leu Phe Cys Leu Leu
	385		390		395
Pro Pro Val	Pro Thr	Gln Asn	Ala Leu	Pro Lys	Val Leu Ala Val
	405		410		415
Ile Gln Val					

<210> 3555

<211> 1038

<212> DNA

<213> Homo sapiens

<400> 3555

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120
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180
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240
ttcgtggagg agtacatccc cacacaggag atccaggtca ccagcatcca ctggagctac
300
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360
aaaaagcgag gcgacggctt aaagatggag aacgaccccc agggaggcga gtctgaaatg
420
gccctgggat ctgagttcct ggacgtgtac aagaactgca accgggtggg catgatgttc
480
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540
cacgtgccag tgtgcgtgct ggggaactac cgggacatgg gcgagcaccg agtcacnnc
600
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720
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780
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gcggccaacg ggcagagccc atccccgggc tccagtcac cagtgggtgc tgcaggcgct
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<210> 3556

<211> 333

<212> PRT

<213> Homo sapiens

<400> 3556

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 20           25           30
Gln Arg Arg Phe Ala Lys Gly Val Gln Tyr Asn Met Lys Ile Val Ile
 35           40           45
Arg Gly Asp Arg Asn Thr Gly Lys Thr Ala Leu Trp His Arg Leu Gln
 50           55           60
Gly Arg Pro Phe Val Glu Tyr Ile Pro Thr Gln Glu Ile Gln Val
 65           70           75
Thr Ser Ile His Trp Ser Tyr Lys Thr Thr Asp Asp Ile Val Lys Val
 85           90           95
Glu Val Trp Asp Val Val Asp Lys Gly Lys Cys Lys Lys Arg Gly Asp
100           105           110
Gly Leu Lys Met Glu Asn Asp Pro Gln Glu Ala Glu Ser Glu Met Ala
115           120           125
Leu Asp Ala Glu Phe Leu Asp Val Tyr Lys Asn Cys Asn Gly Val Val
130           135           140
Met Met Phe Asp Ile Thr Lys Gln Trp Thr Phe Asn Tyr Ile Leu Arg
145           150           155
Glu Leu Pro Lys Val Pro Thr His Val Pro Val Cys Val Leu Gly Asn
165           170           175
Tyr Arg Asp Met Gly Glu His Arg Val Ile Xaa Cys Arg Thr Xaa Val
180           185           190
Arg Asp Phe Ile Asp Asn Leu Asp Arg Pro Pro Gly Ser Ser Tyr Phe
195           200           205
Arg Tyr Ala Glu Ser Ser Met Lys Asn Ser Phe Gly Leu Lys Tyr Leu
210           215           220
His Lys Phe Phe Asn Ile Pro Phe Leu Gln Leu Gln Arg Glu Thr Leu
225           230           235
Leu Arg Gln Leu Glu Thr Asn Gln Leu Asp Met Asp Ala Thr Leu Glu
245           250           255
Glu Leu Ser Val Gln Gln Glu Thr Glu Asp Gln Asn Tyr Gly Ile Phe
260           265           270
Leu Glu Met Met Glu Ala Arg Ser Arg Gly His Ala Ser Pro Leu Ala
275           280           285
Ala Asn Gly Gln Ser Pro Ser Pro Gly Ser Gln Ser Pro Val Val Pro
290           295           300
Ala Gly Ala Val Ser Thr Gly Ser Ser Ser Pro Gly Thr Ala Gln Pro
305           310           315
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325           330

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<210> 3557

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3557

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 120
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<210> 3558

<211> 162

<212> PRT

<213> Homo sapiens

<400> 3558

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		20						25				30		
Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys
	35					40					45			
His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu
	50				55					60				
Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly
65				70					75				80	
Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gly
			85				90						95	
Arg	Arg	His	Cys	Ile	Leu	Leu	Pro	Gly	Ser	Gln	Glu	Ser	Asp	Ser
		100					105					110		
Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu	Lys	Ser	Arg	Gln
	115				120						125			
Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys
	130				135					140				
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Leu	Asp													

<210> 3559

<211> 673

<212> DNA

<213> Homo sapiens

<400> 3559

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<210> 3560

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3560

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 Phe Lys Phe Glu Ser Thr Asp Glu Asp Lys Arg Lys Lys Leu Cys Glu
 35 40 45
 Gly Ile Phe Lys Val Leu Ile Lys Asp Ile Pro Thr Thr Cys Gln Val
 50 55 60
 Ser Cys Leu Glu Val Leu Arg Ile Leu Ser Arg Asp Lys Lys Val Leu
 65 70 75 80
 Val Pro Val Thr Thr Lys Glu Asn Met Gln Ile Leu Leu Arg Leu Ala
 85 90 95
 Lys Leu Asn Glu Leu Asp Asp Ser Leu Glu Lys Val Ser Glu Phe Pro
 100 105 110
 Val Ile Val Glu Ser Leu Lys Cys Leu Cys Asn Ile Val Phe Asn Ser
 115 120 125
 Gln Met Ala Gln Gln Leu Ser Leu Glu Leu Asn Leu Ala Ala Lys Leu
 130 135 140
 Cys Asn Leu Leu Arg Lys Cys Lys Asp Arg Lys Phe Ile Asn Asp Ile

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145             150             155             160
Lys Cys Phe Asp Leu Arg Leu Leu Phe Leu Leu Ser Leu Leu His Thr
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Asp Ile Arg Ser Gln Leu Arg Tyr Glu Leu Gln Gly Leu Pro Leu Leu
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Thr Gln Ile
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<210> 3561

<211> 523

<212> DNA

<213> Homo sapiens

<400> 3561

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<210> 3562

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3562

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20             25             30
Leu His Val Asp Gly Leu Phe Arg Leu Asp Trp Leu Arg Thr Glu Glu
35             40             45
Met Glu Gly Trp Ala Gly Ser Gly Gly Val Gly Ser Gln Thr Asp Ser
50             55             60
Ala Trp Gly Leu Ala His Gly Val Glu Ala Glu Val Trp Trp Val Phe
65             70             75             80
Ser Thr Leu Thr Ser His Cys Thr Lys His Thr Thr Leu Gln Gly Asp
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Gly Glu Glu Glu Trp Gly Lys Gly Val Cys
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 <212> DNA
 <213> Homo sapiens

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<210> 3564
 <211> 82
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Cys Val Arg Ile Leu Leu Asp Pro Tyr Ser Arg Met Pro Ala Ser Ser
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 Trp Thr Asp His Lys Glu Ala Leu Glu Arg Gly Gln Phe Asp Tyr Ala
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 Leu Val

<210> 3565
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 <212> DNA
 <213> Homo sapiens

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 420
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<210> 3566

<211> 193

<212> PRT

<213> Homo sapiens

<400> 3566

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			20				25					30			
Arg	Ala	Thr	Pro	Gln	Glu	Val	Gly	Arg	Thr	Ser	Ala	His	Phe	Lys	Ser
		35				40				45					
Gln	Lys	Pro	Pro	Phe	Pro	Gly	Ala	Arg	Ala	Val	Pro	Arg	Tyr	Ala	Arg
	50				55				60						
Arg	Glu	Pro	Gly	Arg	Ala	Ala	Lys	Met	Ser	Gln	Pro	Lys	Lys	Arg	Lys
65				70				75						80	
Leu	Glu	Ser	Gly	Gly	Ala	Glu	Gly	Gly	Glu	Gly	Thr	Glu	Glu	Glu	
			85				90					95			
Asp	Gly	Ala	Glu	Arg	Glu	Ala	Ala	Leu	Glu	Arg	Pro	Arg	Thr	Thr	Lys
			100				105					110			
Arg	Glu	Arg	Asp	Gln	Leu	Tyr	Tyr	Glu	Cys	Tyr	Ser	Asp	Val	Ser	Val
		115				120				125					
His	Glu	Glu	Met	Ile	Ala	Asp	Arg	Val	Arg	Thr	Asp	Ala	Tyr	Arg	Trp
	130				135					140					
Val	Ser	Leu	Arg	Asn	Trp	Ala	Ala	Leu	Arg	Gly	Lys	Thr	Val	Leu	Asp
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			165					170					175		
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<210> 3567

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 3567

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<210> 3568

<211> 869

<212> PRT

<213> Homo sapiens

<400> 3568

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			20				25						30		
Phe	Gln	Lys	Gln	Leu	Arg	Gly	Gln	Ile	Ala	Arg	Arg	Val	Tyr	Arg	Gln
			35			40						45			
Leu	Leu	Ala	Glu	Lys	Arg	Glu	Gln	Glu	Glu	Lys	Lys	Lys	Gln	Glu	Glu
			50			55					60				
Glu	Glu	Lys	Lys	Lys	Arg	Glu	Glu	Glu	Glu	Arg	Glu	Arg	Glu	Arg	Glu
65					70					75			80		
Arg	Arg	Glu	Ala	Glu	Leu	Arg	Ala	Gln	Gln	Glu	Glu	Glu	Thr	Arg	Lys

2726

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 545 550 555 560
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 Asp Ser Val Cys Ala Ser Asp Ser Pro Asp Arg Pro Asn Ser Phe Val
 580 585 590
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 Glu Met His His Trp Ile Thr Leu Leu Gln Arg Ser Lys Gly Asp Thr
 610 615 620
 Arg Val Glu Gly Gln Glu Phe Ile Val Arg Gly Trp Leu His Lys Glu
 625 630 635 640
 Val Lys Asn Ser Pro Lys Met Ser Ser Leu Lys Leu Lys Lys Arg Trp
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 Phe Val Leu Thr His Asn Ser Leu Asp Tyr Tyr Lys Ser Ser Glu Lys
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 820 825 830
 Thr Gly His Asp Leu Arg Pro Leu Arg Asp Glu Leu Tyr Cys Gln Leu
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<210> 3569

<211> 5070

<212> DNA

<213> Homo sapiens

<400> 3569

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<210> 3570

<211> 893

<212> PRT

<213> Homo sapiens

<400> 3570

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		20					25						30		
Arg	Ala	Pro	Ser	Pro	Pro	Trp	Pro	Pro	Gln	Gly	Pro	Leu	Ser	Pro	Gly
		35				40						45			
Pro	Gly	Ser	Leu	Pro	Leu	Ser	Ile	Ala	Arg	Val	Gln	Thr	Pro	Pro	Trp
	50				55					60					
His	Pro	Pro	Gly	Ala	Pro	Ser	Pro	Gly	Leu	Leu	Gln	Asp	Ser	Asp	Ser
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Leu	Ser	Gly	Ser	Tyr	Leu	Asp	Pro	Asn	Tyr	Gln	Ser	Ile	Lys	Trp	Gln
				85				90					95		
Pro	His	Gln	Gln	Asn	Lys	Trp	Ala	Thr	Leu	Tyr	Asp	Ala	Asn	Tyr	Lys
		100					105						110		
Glu	Leu	Pro	Met	Leu	Thr	Tyr	Arg	Val	Asp	Ala	Asp	Lys	Gly	Phe	Asn
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Gly	Val	Lys	Leu	Glu	Ala	Leu	Asn	Gln	Ser	Ile	Asn	Ile	Glu	Gln	Ser
		180					185						190		
Gln	Ser	Asp	Arg	Ser	Lys	Arg	Pro	Phe	Asn	Pro	Val	Thr	Val	Asn	Leu
		195				200						205			
Pro	Pro	Glu	Gln	Val	Thr	Lys	Val	Thr	Val	Gly	Arg	Leu	His	Phe	Ser
		210				215					220				
Glu	Thr	Thr	Ala	Asn	Asn	Met	Arg	Lys	Lys	Gly	Lys	Pro	Asn	Pro	Asp
225				230						235				240	
Gln	Arg	Tyr	Phe	Met	Leu	Val	Val	Ala	Leu	Gln	Ala	His	Ala	Gln	Asn
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Gln	Asn	Tyr	Thr	Leu	Ala	Ala	Gln	Ile	Ser	Glu	Arg	Ile	Ile	Val	Arg
		260					265						270		
Ala	Ser	Asn	Pro	Gly	Gln	Phe	Glu	Ser	Asp	Ser	Asp	Val	Leu	Trp	Gln
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Arg	Ala	Gln	Val	Pro	Asp	Thr	Val	Phe	His	His	Gly	Arg	Val	Gly	Ile
		290				295					300				
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Val	Met	Gly	Ser	Leu	Met	His	Pro	Ser	Asp	Leu	Arg	Ala	Lys	Glu	His
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Val	Gln	Glu	Val	Asp	Thr	Thr	Glu	Gln	Leu	Lys	Arg	Ile	Ser	Arg	Met


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Arg Leu Val His Tyr Arg Tyr Lys Pro Glu Phe Ala Ala Ser Ala Gly
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      370                      375                      380
Glu Ile Leu Pro Glu Ala Val Lys Asp Thr Gly Asp Met Val Phe Ala
      385                      390                      395
Asn Gly Lys Thr Ile Glu Asn Phe Leu Val Asn Lys Glu Arg Ile
      405                      410                      415
Phe Met Glu Asn Val Gly Ala Val Lys Glu Leu Cys Lys Leu Thr Asp
      420                      425
Asn Leu Glu Thr Arg Ile Asp Glu Leu Glu Arg Trp Ser His Lys Leu
      435                      440                      445
Ala Lys Leu Arg Arg Leu Asp Ser Leu Lys Ser Thr Gly Ser Ser Gly
      450                      455                      460
Ala Phe Ser His Ala Gly Ser Gln Phe Ser Arg Ala Gly Ser Val Pro
      465                      470                      475
His Lys Lys Arg Pro Pro Lys Val Ala Ser Lys Ser Ser Ser Val Val
      485                      490                      495
Pro Asp Gln Ala Cys Ile Ser Gln Arg Phe Leu Gln Gly Thr Ile Ile
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Ala Leu Val Val Val Met Ala Phe Ser Val Val Ser Met Ser Thr Leu
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Tyr Val Leu Ser Leu Arg Thr Glu Glu Asp Leu Val Asp Thr Asp Gly
      530                      535                      540
Ser Phe Ala Val Ser Thr Ser Cys Leu Leu Ala Leu Leu Arg Pro Gln
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Pro Pro Gly Gly Ser Glu Ala Leu Cys Pro Trp Ser Ser Gln Ser Phe
      565                      570                      575
Gly Thr Thr Gln Leu Arg Gln Ser Pro Leu Thr Thr Gly Leu Pro Gly
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Ile Gln Pro Ser Leu Leu Leu Val Thr Thr Ser Leu Thr Ser Ser Ala
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Pro Gly Ser Ala Val Arg Thr Leu Asp Met Cys Ser Ser His Pro Cys
      610                      615                      620
Pro Val Ile Cys Cys Ser Ser Pro Thr Thr Asn Pro Thr Thr Gly Pro
      625                      630                      635
Ser Leu Gly Pro Ser Phe Asn Pro Gly His Val Leu Ser Pro Ser Pro
      645                      650                      655
Ser Pro Ser Thr Asn Arg Ser Gly Pro Ser Gln Met Ala Leu Leu Pro
      660                      665                      670
Val Thr Asn Ile Arg Ala Lys Ser Trp Gly Leu Ser Val Asn Gly Ile
      675                      680                      685
Asp His Ser Lys His His Lys Ser Leu Glu Pro Leu Ala Ser Pro Ala
      690                      695                      700
Val Pro Phe Pro Gly Gly Gln Gly Lys Ala Lys Asn Ser Pro Ser Leu
      705                      710                      715
Gly Phe His Gly Arg Ala Arg Arg Gly Ala Leu Gln Ser Ser Val Gly
      725                      730                      735
Pro Ala Glu Pro Thr Trp Ala Gln Gly Gln Ser Ala Ser Leu Leu Ala
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Glu Pro Val Pro Ser Leu Thr Ser Ile Gln Val Leu Glu Asn Ser Met
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Ser Ile Thr Ser Gln Tyr Cys Ala Pro Gly Asp Ala Cys Arg Pro Gly

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785              790              795              800
Ser Leu Thr Leu Gln Met Asn Ser Ser Ser Pro Val Ser Val Val Leu
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Cys Ser Leu Arg Ser Lys Glu Glu Pro Cys Glu Glu Gly Ser Leu Pro
      820              825              830
Gln Ser Leu His Thr His Gln Asp Thr Gln Gly Thr Ser His Arg Trp
      835              840              845
Pro Ile Thr Ile Leu Ser Phe Arg Glu Phe Thr Tyr His Phe Arg Val
      850              855              860
Ala Leu Leu Gly Gln Ala Asn Cys Ser Ser Glu Ala Leu Ala Gln Pro
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<210> 3571
 <211> 528
 <212> DNA
 <213> Homo sapiens

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180
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240
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420
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<210> 3572
 <211> 110
 <212> PRT
 <213> Homo sapiens

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Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
35        40        45
Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His

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50	55	60
Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro		
65	70	75
Ala Leu Leu Pro Gln Val Ser Thr Gln Val Ala Gln Ala Ala Leu Arg		80
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		110

<210> 3573

<211> 1236

<212> DNA

<213> Homo sapiens

<400> 3573

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<210> 3574

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3574

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		20						25				30			
Ile	Asn	Pro	Ser	His	Thr	His	Ser	Pro	Ile	Phe	Ser	Ile	His	Ser	Gly
	35					40					45				
Thr	Cys	Val	Phe	Asn	Lys	Pro	Gly	Gly	His	Thr	Ala	Ser	His	Thr	His
	50				55					60					
Thr	Leu	Thr	Ala	Thr	Asn	Pro	Arg	Ser	His	Ala	His	Ala	Asp	Ala	Pro
65				70					75					80	
Cys	Gly	Thr	Cys	Thr	His	Asn	His	Thr	Cys	Val	Gln	Ser	Gly	Arg	His
			85					90						95	
Thr	His	Thr	Cys	Ile	Glu	Ala	Ser	Leu	Trp	Thr	Pro	Ser	Ala	Ser	His
	100						105						110		
Arg	Gly	Gly	Ser	Pro	Ala	Val	Phe	Asp	Trp	Phe	Phe	Glu	Ala	Ala	Cys
	115					120						125			
Pro	Ala	Ser	Val	Gln	Glu	Asp	Pro	Pro	Ile	Leu	Arg	Gln	Phe	Pro	Pro
	130				135					140					
Asp	Phe	Arg	Asp	Gln	Glu	Ala	Met	Gln	Met	Val	Pro	Lys	Phe	Cys	Phe
145				150					155					160	
Pro	Phe	Asp	Val	Glu	Arg	Gly	Pro	Pro	Ser	Pro	Ala	Val	Gln	His	Phe
			165					170					175		
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	180						185					190			
Arg	Leu	Arg	Ala	Gly	Thr	Gln	Ser	Cys	Leu	Cys	Ile	Leu	Ser	His	Leu
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Pro	Trp	Phe	Glu	Val	Phe	Tyr	Lys	Leu	Leu	Asn	Thr	Val	Gly	Asp	Leu
	210				215						220				
Leu	Ala	Gln	Asp	Gln	Val	Thr	Glu	Ala	Glu	Glu	Leu	Leu	Gln	Asn	Leu
225				230					235					240	
Phe	Gln	Gln	Ser	Leu	Ser	Gly	Pro	Gln	Ala	Ser	Val	Gly	Leu	Glu	Leu
			245					250					255		
Gly	Ser	Gly	Val	Thr	Val	Ser	Ser	Gly	Gln	Gly	Ile	Pro	Pro	Pro	Thr
	260							265				270			
Arg	Gly	Asn	Ser	Lys	Pro	Leu	Ser	Cys	Phe	Val	Ala	Pro	Asp	Ser	Gly
	275					280						285			
Arg	Leu	Pro	Ser	Ile	Pro	Glu	Asn	Arg	Asn	Leu	Thr	Glu	Leu	Val	Val
	290				295					300					
Ala	Val	Thr	Asp	Glu	Asn	Ile	Val	Gly	Leu	Phe	Ala	Ala	Leu	Leu	Ala
305				310					315					320	
Glu	Arg	Arg	Val	Leu	Leu	Thr	Ala	Ser	Lys	Leu	Ser	Thr	Leu	Arg	Arg
			325					330					335		
Gly	Pro	Pro	Gly	Arg	Gly	Gly	Ser	Arg	Ala	Trp	Leu	Arg	Pro	Gly	Gly
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355

360

<210> 3575

<211> 769

<212> DNA

<213> Homo sapiens

<400> 3575

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 360
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 660
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<210> 3576

<211> 205

<212> PRT

<213> Homo sapiens

<400> 3576

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			20					25					30		
Ser	Thr	Thr	Lys	Gln	Asp	Lys	Ile	Ile	Ser	Phe	Ile	Phe	Ala	Leu	Thr
		35				40						45			
Ile	Pro	Lys	Met	Met	Phe	Leu	Pro	Asn	Glu	Cys	Leu	His	Phe	Ile	Phe
		50			55					60					
Gln	Thr	Cys	Ser	Leu	Lys	Pro	Ile	Ile	Ala	Pro	Leu	Arg	Asn	Ile	Phe
				70					75				80		
Thr	Ser	Ser	Ser	Gly	Met	Ser	Leu	Ser	Ala	Gly	Ser	Ser	Pro	Leu	His
				85				90					95		
Ser	Pro	Lys	Ile	Thr	Pro	His	Thr	Ser	Pro	Ala	Pro	Arg	Arg	Arg	Ser

100										105										110																														
His	Thr	Pro	Asn	Pro	Ala	Ser	Tyr	Met	Val	Pro	Ser	Ser	Ser	Ala	Ser	Thr	His	Thr	Pro	Asn	Pro	Ala	Ser	Tyr	Met	Val	Pro	Ser	Ser	Ser	Ala	Ser	Thr	His	Thr	Pro	Asn	Pro	Ala	Ser	Tyr	Met	Val	Pro	Ser	Ser	Ser	Ala	Ser	Thr
115										120										125																														
Ser	Val	Asn	Asn	Pro	Val	Ser	Gln	Thr	Thr	Pro	Ser	Ser	Gly	Gln	Val	Ile	Ser	Val	Asn	Asn	Pro	Val	Ser	Gln	Thr	Thr	Pro	Ser	Ser	Gly	Gln	Val	Ile	Ser	Val	Asn	Asn	Pro	Val	Ser	Gln	Thr	Thr	Pro	Ser	Ser	Gly	Gln	Val	Ile
130										135										140																														
Gln	Lys	Glu	Thr	Val	Gly	Gly	Thr	Thr	Tyr	Phe	Tyr	Thr	Asp	Thr	Thr	Pro	Gln	Lys	Glu	Thr	Val	Gly	Gly	Thr	Thr	Tyr	Phe	Tyr	Thr	Asp	Thr	Thr	Pro	Gln	Lys	Glu	Thr	Val	Gly	Gly	Thr	Thr	Tyr	Phe	Tyr	Thr	Asp	Thr	Thr	Pro
145										150										155																														
Pro	Ala	Pro	Leu	Thr	Gly	Met	Val	Phe	Pro	Asn	Tyr	His	Ile	Tyr	Pro	Pro	Ala	Pro	Leu	Thr	Gly	Met	Val	Phe	Pro	Asn	Tyr	His	Ile	Tyr	Pro	Pro	Ala	Pro	Leu	Thr	Gly	Met	Val	Phe	Pro	Asn	Tyr	His	Ile	Tyr	Pro			
165										170										175																														
Pro	Thr	Ala	Pro	His	Val	Ala	Tyr	Met	Gln	Pro	Lys	Ala	Asn	Ala	Pro	Pro	Thr	Ala	Pro	His	Val	Ala	Tyr	Met	Gln	Pro	Lys	Ala	Asn	Ala	Pro	Pro	Thr	Ala	Pro	His	Val	Ala	Tyr	Met	Gln	Pro	Lys	Ala	Asn	Ala	Pro			
180										185										190																														
Ser	Phe	Phe	Met	Ala	Asp	Glu	Leu	Arg	Gln	Glu	Leu	Ile				Ser	Phe	Phe	Met	Ala	Asp	Glu	Leu	Arg	Gln	Glu	Leu	Ile				Ser	Phe	Phe	Met	Ala	Asp	Glu	Leu	Arg	Gln	Glu	Leu	Ile						
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<210> 3577

<211> 1225

<212> DNA

<213> Homo sapiens

<400> 3577

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<210> 3578

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3578

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			20					25					30		
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Lys	Asn	Pro	Glu	Glu	Ile	Arg	Gly	Gly	Gly	Leu	Leu	Lys	Tyr	Ser	Asn
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Leu	Glu	Arg	Tyr	Met	Cys	Ser	Arg	Phe	Phe	Ile	Asp	Phe	Pro	Asp	Ile
		100						105					110		
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		115				120						125			
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His	His	Pro	Pro	Val	Pro	Pro	Arg	Ser	Pro	Val	Thr	Thr	Ser	Gly	Pro
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<210> 3579

<211> 755

<212> DNA

<213> Homo sapiens

<400> 3579

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<210> 3580

<211> 121

<212> PRT

<213> Homo sapiens

<400> 3580

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          20             25             30
Glu Thr Lys Gln His Glu Lys Trp Leu Ser Gln Pro Thr Cys Ser Asp
          35             40             45
Met Pro Arg Asn Phe Ser Ser Gly Pro Gly Ser Gly Leu Leu Ile
 50             55             60
Phe Ser Gln Asp Ile Val Leu Ser Trp Asn Leu Ala Gly Gly Trp Ser
 65             70             75             80
Ile Cys Ile Trp Ser Ile Ala Arg Leu Ser His Leu Ser Ser Asp Gln
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Lys Cys Ile Ser Lys Ile Ile Thr Ser Thr Lys Thr Ile Ile Asp Cys
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<210> 3581

<211> 2132

<212> DNA

<213> Homo sapiens

<400> 3581

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120

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<210> 3582

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3582

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		20					25					30			
Ala	Ala	Pro	Gly	Val	Ala	Pro	Arg	Gly	Ala	Cys	Trp	Thr	Cys	Thr	Arg
		35				40						45			
Arg	Ala	Ser	Ser	Ala	Cys	Thr	Arg	Arg	Gly	Thr	Ala	Ala	Ala	Trp	Ser
		50				55				60					
Ser	Arg	Pro	Arg	Pro	Ser	Thr	Thr	Ala	Thr	Ser	Arg	Cys	Ser	Ser	Ala
		65			70					75					80
Arg	Trp	Arg	Arg	Arg	Thr	Arg	Gly	Cys	Thr	Pro	Ala	Thr	Cys	Thr	Ile
				85					90					95	
Thr	Thr	Ala	Thr	Ser	Thr	Arg	Ala	Trp	Pro	Ser	Ala	Trp	Arg	Ser	Pro
		100						105					110		
Thr	Ala	Pro	Arg	Pro	Pro	Pro	Pro	Thr	Gly	Thr	Ala	Arg	Arg	Arg	Cys
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<210> 3583

<211> 1554

<212> DNA

<213> Homo sapiens

<400> 3583

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<210> 3584

<211> 356

<212> PRT

<213> Homo sapiens

<400> 3584

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Ser	Thr	Leu	Asp	Gly	Ala	Ala	Ala	Arg	Ala	Phe	Tyr	Glu	Ala	Leu	Ile
			35				40				45				
Gly	Asp	Glu	Ser	Ser	Ala	Pro	Asp	Ser	Gln	Arg	Ser	Gln	Thr	Glu	Pro
			50				55				60				
Ala	Arg	Glu	Arg	Lys	Arg	Lys	Lys	Arg	Arg	Ile	Met	Lys	Ala	Pro	Ala
			65				70				75				80
Ala	Glu	Ala	Val	Ala	Glu	Gly	Ala	Ser	Gly	Arg	His	Gly	Gln	Gly	Arg
			85				90				95				
Ser	Leu	Glu	Ala	Glu	Asp	Lys	Met	Thr	His	Arg	Ile	Leu	Arg	Ala	Ala
			100				105				110				
Gln	Glu	Gly	Asp	Leu	Pro	Glu	Leu	Arg	Arg	Leu	Leu	Glu	Pro	His	Glu
			115				120				125				
Ala	Gly	Gly	Ala	Gly	Gly	Asn	Ile	Asn	Ala	Arg	Asp	Ala	Phe	Trp	Trp
			130				135				140				
Thr	Pro	Leu	Met	Cys	Ala	Ala	Arg	Ala	Gly	Gln	Gly	Ala	Ala	Val	Ser
			145				150				155				160
Tyr	Leu	Leu	Gly	Arg	Gly	Ala	Ala	Trp	Val	Gly	Val	Cys	Glu	Leu	Ser
			165				170				175				
Gly	Arg	Asp	Ala	Ala	Gln	Leu	Ala	Glu	Glu	Ala	Gly	Phe	Pro	Glu	Val
			180				185				190				
Ala	Arg	Met	Val	Arg	Glu	Ser	His	Gly	Glu	Thr	Arg	Ser	Pro	Glu	Asn
			195				200				205				
Arg	Ser	Pro	Thr	Pro	Ser	Leu	Gln	Tyr	Cys	Glu	Asn	Cys	Asp	Thr	His
			210				215				220				
Phe	Gln	Asp	Ser	Asn	His	Arg	Thr	Ser	Thr	Ala	His	Leu	Leu	Ser	Leu
			225				230				235				240
Ser	Gln	Gly	Pro	Gln	Pro	Pro	Asn	Leu	Pro	Leu	Gly	Val	Pro	Ile	Ser
			245				250				255				
Ser	Pro	Gly	Phe	Lys	Leu	Leu	Leu	Arg	Gly	Gly	Trp	Glu	Pro	Gly	Met
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<210> 3585

<211> 2782

<212> DNA

<213> Homo sapiens

<400> 3585

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<210> 3586

<211> 663

<212> PRT

<213> Homo sapiens

<400> 3586

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			20					25					30	
Arg	Ser	Cys	Trp	Arg	Lys	Trp	Lys	Gln	Leu	Ser	Arg	Leu	Gln	Arg
		35					40				45			
Met	Ile	Leu	Phe	Leu	Leu	Ala	Phe	Leu	Leu	Phe	Cys	Gly	Leu	Phe
	50					55				60				
Tyr	Ile	Asn	Leu	Ala	Asp	His	Trp	Lys	Ala	Leu	Ala	Phe	Arg	Leu
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Glu	Glu	Gln	Lys	Met	Arg	Pro	Glu	Ile	Ala	Gly	Leu	Lys	Pro	Ala
														Asn

[illegible]

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      515              520              525
Thr Gly Leu Ser Pro Glu Ile Val His Phe Asn Leu Tyr Pro Gln Pro
  530              535              540
Gly Arg Arg Asp Val Glu Val Lys Pro Ala Asp Arg His Asn Leu Leu
  545              550              555
Arg Pro Glu Thr Val Glu Ser Leu Phe Tyr Leu Tyr Arg Val Thr Gly
      565              570              575
Asp Arg Lys Tyr Gln Asp Trp Gly Trp Glu Ile Leu Gln Ser Phe Ser
      580              585              590
Arg Phe Thr Arg Val Pro Ser Gly Gly Tyr Ser Ser Ile Asn Asn Val
      595              600              605
Gln Asp Pro Gln Lys Pro Glu Pro Arg Asp Lys Met Glu Ser Phe Phe
      610              615              620
Leu Gly Glu Thr Leu Lys Tyr Leu Phe Leu Leu Phe Ser Asp Asp Pro
  625              630              635
Asn Leu Leu Ser Leu Asp Ala Tyr Val Phe Asn Thr Glu Ala His Pro
      645              650              655
Leu Pro Ile Trp Thr Pro Ala
      660

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<210> 3587

<211> 3148

<212> DNA

<213> Homo sapiens

<400> 3587

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  120
tccagggcct catctgcttc aaagccaaag tcttctctcaa ccttaactctg caccgggggc
  180
agctctggag tcagcgcatt tctgtctcgg cgtccatccc gtggcactcg ccgcctcttc
  240
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  300
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  360
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  420
tcatccccct aggagtccag cactctcatg aggaacctcc gttctctgct cagcctcga
  480
gttatctctt gcaactgatg gagectgttc aggacctcgt cgttcacctg ctgcattctc
  540
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  600
cgaccccggy ctgcctcttc ctcttcatct cgctcccgga gcctgagcc gccagacca
  660
cctgacacaa actccacttc cgtctccage tcgctctcca ggaatgtggc accaaatagg
  720
ggaggcaacg ccaactctga gcttgggggc gctgagaact cctcaaagcc cagcgctggc
  780
atgggtccct ctctctgctc caattccatc tccgcgacct ccggaagccc cgggectcag
  840

```


agcttccgac ctcttcaatc tgtagggttaa gccgttcgca aaactacttg tcccatcagg
900
ctcagcagcc gaggacggcg ggacgtggcc ctaggccttg tgggagttgt agtttctgt
960
ttccggcttc gcttcggccc acccccacgt ccaccccgaa tccctgetta aaggccttgc
1020
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1080
cgccccgtcg tccggccaca gcgattctct gcttagcagg atcggtccac agcgggacgt
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1200
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1560
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1980
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2040
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2100
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2160
tacatctacc acagtgcacat cgtgcagtc ctgccaccgg atctcggcgg gaaagcggcc
2220
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2280
gaaggggaagg tgggctacga actgaagat gagatcgagc gcaaatcga caagtggcag
2340
gagccgccc ctgtgaagca ggtgaagccg ctgctgcgc cctcgatgg acagcggag
2400
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2460

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 2520
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 2580
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 2640
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 2700
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 2760
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 2820
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 3000
 ggcctcccc aggaccgaga tcaccgccca gtatgggcta gagcagggtc tcactatgcc
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 3120
 caagatctgt caaaaaaaaa aaaaaaaaa
 3148

<210> 3588

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3588

Met Ser Leu Ala Asp Glu Leu Leu Ala Asp Leu Glu Glu Ala Ala Glu
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 Glu Glu Glu Gly Ser Tyr Gly Glu Glu Glu Glu Pro Ala Ile
 20 25 30
 Glu Asp Val Gln Glu Glu Thr Gln Leu Asp Leu Ser Gly Asp Ser Val
 35 40 45
 Lys Thr Ile Ala Lys Leu Trp Asp Ser Lys Met Phe Ala Glu Ile Met
 50 55 60
 Met Lys Ile Glu Glu Tyr Ile Ser Lys Gln Ala Lys Ala Ser Glu Val
 65 70 75 80
 Met Gly Pro Val Glu Ala Ala Pro Glu Tyr Arg Val Ile Val Asp Ala
 85 90 95
 Asn Asn Leu Thr Val Glu Ile Glu Asn Glu Leu Asn Ile Ile His Lys
 100 105 110
 Phe Ile Arg Asp Lys Tyr Ser Lys Arg Phe Pro Glu Leu Glu Ser Leu
 115 120 125
 Val Pro Asn Ala Leu Asp Tyr Ile Arg Thr Val Lys Glu Leu Gly Asn
 130 135 140
 Ser Leu Asp Lys Cys Lys Asn Asn Glu Asn Leu Gln Gln Ile Leu Thr
 145 150 155 160
 Asn Ala Thr Ile Met Val Val Ser Val Thr Ala Ser Thr Thr Gln Gly
 165 170 175
 Gln Gln Leu Ser Glu Glu Glu Leu Glu Arg Leu Glu Glu Ala Cys Asp

```

      180              185              190
Met Ala Leu Glu Leu Asn Ala Ser Lys His Arg Ile Tyr Glu Tyr Val
195              200              205
Glu Ser Arg Met Ser Phe Ile Ala Pro Asn Leu Ser Ile Ile Ile Gly
210              215              220
Ala Ser Thr Ala Ala Lys Ile Met Gly Val Ala Gly Leu Thr Asn
225              230              235
Leu Ser Lys Met Pro Ala Cys Asn Ile Met Leu Leu Gly Ala Gln Arg
245              250              255
Lys Thr Leu Ser Gly Phe Ser Ser Thr Ser Val Leu Pro His Thr Gly
260              265              270
Tyr Ile Tyr His Ser Asp Ile Val Gln Ser Leu Pro Pro Asp Leu Arg
275              280              285
Arg Lys Ala Ala Arg Leu Val Ala Ala Lys Cys Thr Leu Ala Ala Arg
290              295              300
Val Asp Ser Phe His Glu Ser Thr Glu Gly Lys Val Gly Tyr Glu Leu
305              310              315
Lys Asp Glu Ile Glu Arg Lys Phe Asp Lys Trp Gln Glu Pro Pro Pro
325              330              335
Val Lys Gln Val Lys Pro Leu Pro Ala Pro Leu Asp Gly Gln Arg Lys
340              345              350
Lys Arg Gly Gly Arg Arg Tyr Arg Lys Met Lys Glu Arg Leu Gly Leu
355              360              365
Thr Glu Ile Arg Lys Gln Ala Asn Arg Met Ser Phe Gly Glu Ile Glu
370              375              380
Glu Asp Ala Tyr Gln Glu Asp Leu Gly Phe Ser Leu Gly His Leu Gly
385              390              395
Lys Ser Gly Ser Gly Arg Val Arg Gln Thr Gln Val Asn Glu Ala Thr
405              410              415
Lys Ala Arg Ile Ser Lys Thr Leu Gln Arg Thr Leu Gln Lys Gln Ser
420              425              430
Val Val Tyr Gly Gly Lys Ser Thr Ile Arg Asp Arg Ser Ser Gly Thr
435              440              445
Ala Ser Ser Val Ala Phe Thr Pro Leu Gln Gly Leu Glu Ile Val Asn
450              455              460
Pro Gln Ala Ala Glu Lys Lys Val Ala Glu Ala Asn Gln Lys Tyr Phe
465              470              475
Ser Ser Met Ala Glu Phe Leu Lys Val Lys Gly Glu Lys Ser Gly Leu
485              490              495
Met Ser Thr

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<210> 3589

<211> 675

<212> DNA

<213> Homo sapiens

<400> 3589

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catgaaatcg aaggtcatcg ttatggtggg aacaggaaca agcagaggca acttctgatg
120
aatagttctt gaccaggtc cctccatgaa cctcgaagct gaccagcca taggggggat
180

```

```

accttcattt cagtcaccagc agcctccccc aaccagtcag ggtccctgaa gagcatctgg
240
ctctccacaa gacaatagac aggaagggga cccagtgggc cccccaagct tagctaagt
300
gagtgaagaa ccaggcgagaa cccaggcagc agatgggata ggagtttcca agccagtgc
360
tggggatagg ccctcccaat tcagaaacaa agcaaggccc tggccacagc caggaaggat
420
tgtaagggcc ttcttgagca gacacaaagg agccctgagc tgctgggggt gatgaggagc
480
ggaggcgagg ccaggcgagc ggtctgcaaa gaattacact ggaagggtgg aagggggaca
540
ttgggtctag tggtttggcc tgtggagagc tgtcaggaga ggggaggatg aggttgggtg
600
agacgcctga ggcaagggtg ttggggggtc ttgttggcag catggtggca aaaggctcca
660
gaggcgacca cgcgt
675

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<210> 3590

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3590

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Met Leu Pro Thr Arg Pro Pro Asn Thr Leu Ala Ser Gly Val Ser Thr
  1             5             10             15
Asn Leu Ile Leu Pro Ser Pro Asp Ser Ser Pro Gln Ala Lys Pro Leu
      20             25             30
Asp Pro Met Ser Pro Phe His Leu Ser Ser Val Ile Leu Cys Arg Pro
      35             40             45
Ser Ala Trp Pro Cys Leu Arg Ser Ser Ser Pro Pro Ala Ala Gln Gly
      50             55             60
Ser Phe Val Ser Ala Gln Glu Gly Pro Tyr Asn Pro Ser Trp Leu Trp
      65             70             75             80
Pro Gly Pro Cys Phe Val Ser Glu Leu Gly Gly Pro Ile Pro Lys His
      85             90             95
Trp Leu Gly Asn Ser Tyr Pro Ile Cys Cys Leu Gly Ser Ala Trp Phe
      100            105            110
Phe Thr His Ile Ser
      115

```

<210> 3591

<211> 669

<212> DNA

<213> Homo sapiens

<400> 3591

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nacgcgtgct ctgcgcttgc catgagactc ctgggagccg cagcgcgtgc ggcctctggg
60
cgcggaaggc ccccgccctc cctaggctgg cagaggaagc aggttaattg gaaggcctgc
120
cgatggtctt catcaggggt gattcctaata gaaaaatac gaaatattgg aatctcagct
180

```

cacattgatt ctgggaaaac tacattaaca gaacgagtc tttactacac tggcagaatt
 240
 gcaaagatgc atgaggtgaa aggtaaagat ggagttggtg ctgtcatgga ttccatggaa
 300
 ctagagagac aaagaggaat cactattcag tcagcagcca cttacacat gtggaagat
 360
 gtcaatatta acattataga tactcctggg catgtggact tcacaataga agtggaaagg
 420
 gccctgagag tgttggtatg tgcagtcctt gttctctgtg ctgttgagg ggtacagtcg
 480
 cagaccatga ctgtcaatcg tcagatgaag cgctacaacg ttccgtttct aacttttatt
 540
 aacaaattgg accgaatggg ctccaaccca gccagggccc tgcagcaaat gaggtctaaa
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 660
 attgtagat
 669

<210> 3592

<211> 223

<212> PRT

<213> Homo sapiens

<400> 3592

Xaa	Ala	Cys	Ser	Ala	Leu	Ala	Met	Arg	Leu	Leu	Gly	Ala	Ala	Ala	Val
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Ala	Ala	Leu	Gly	Arg	Gly	Arg	Ala	Pro	Ala	Ser	Leu	Gly	Trp	Gln	Arg
		20						25					30		
Lys	Gln	Val	Asn	Trp	Lys	Ala	Cys	Arg	Trp	Ser	Ser	Ser	Gly	Val	Ile
		35					40					45			
Pro	Asn	Glu	Lys	Ile	Arg	Asn	Ile	Gly	Ile	Ser	Ala	His	Ile	Asp	Ser
	50					55					60				
Gly	Lys	Thr	Thr	Leu	Thr	Glu	Arg	Val	Leu	Tyr	Tyr	Thr	Gly	Arg	Ile
	65				70					75				80	
Ala	Lys	Met	His	Glu	Val	Lys	Gly	Lys	Asp	Gly	Val	Gly	Ala	Val	Met
			85					90						95	
Asp	Ser	Met	Glu	Leu	Glu	Arg	Gln	Arg	Gly	Ile	Thr	Ile	Gln	Ser	Ala
		100						105					110		
Ala	Thr	Tyr	Thr	Met	Trp	Lys	Asp	Val	Asn	Ile	Asn	Ile	Ile	Asp	Thr
	115					120						125			
Pro	Gly	His	Val	Asp	Phe	Thr	Ile	Glu	Val	Glu	Arg	Ala	Leu	Arg	Val
	130					135					140				
Leu	Asp	Gly	Ala	Val	Leu	Val	Leu	Cys	Ala	Val	Gly	Gly	Val	Gln	Cys
	145				150				155					160	
Gln	Thr	Met	Thr	Val	Asn	Arg	Gln	Met	Lys	Arg	Tyr	Asn	Val	Pro	Phe
			165					170						175	
Leu	Thr	Phe	Ile	Asn	Lys	Leu	Asp	Arg	Met	Gly	Ser	Asn	Pro	Ala	Arg
		180					185						190		
Ala	Leu	Gln	Gln	Met	Arg	Ser	Lys	Leu	Asn	His	Asn	Ala	Ala	Phe	Met
	195						200					205			
Gln	Ile	Pro	Met	Gly	Leu	Glu	Gly	Asn	Phe	Lys	Gly	Ile	Val	Asp	
	210					215						220			

<210> 3593
 <211> 1005
 <212> DNA
 <213> Homo sapiens

<400> 3593
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 120
 ccctcaagca acggatcccc atggcgcttg ttggcgcgct tgtgcctgca gcggccacct
 180
 gtagtctcca agccgttgac ccctattgag gaagagatgg cgtctctact gcagcagatt
 240
 gagatagaga gaagcctgta ttcagaccac gagcttcgtg ctctggatga aaaccagcga
 300
 ctgggaaaga agaaagctga ccttcattgat gaagaagatg aacaggatat attgctggcg
 360
 caagatttgg aagatatgtg ggagcagaaa tttctacagt tcaaacttgg agctcgcata
 420
 acagaagctg atgaaaagaa tgaccgaaca tccctgaaca ggaagctaga caggaaacctt
 480
 gtctctgttag tcagagagaa gtttgagac caggatgttt ggatactgcc ccaggcagag
 540
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 600
 aacaacatgg aagccaagtt cctaggaagt gcaccctgtg ggcactacac attcaagttc
 660
 ccccgaggca tgcggacaga gagtaacctc ggagccaagg tgttctctct caaagcactg
 720
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 780
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 840
 gacctctgat gggccgagct gcctgtggac ggtgctcaga caagtctggg attagagcct
 900
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 960
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 1005

<210> 3594
 <211> 282
 <212> PRT
 <213> Homo sapiens

<400> 3594
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 Gly Gly Trp Arg Arg Phe Glu Arg Leu Trp Ala Gly Ser Leu Ser Ser
 20 25 30
 Arg Ser Leu Ala Leu Ala Ala Ala Pro Ser Ser Asn Gly Ser Pro Trp
 35 40 45
 Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

50		55		60											
Pro	Leu	Thr	Pro	Leu	Gln	Glu	Met	Ala	Ser	Leu	Leu	Gln	Gln	Ile	
65				70					75					80	
Glu	Ile	Glu	Arg	Ser	Leu	Tyr	Ser	Asp	His	Glu	Leu	Arg	Ala	Leu	Asp
			85						90					95	
Glu	Asn	Gln	Arg	Leu	Ala	Lys	Lys	Lys	Ala	Asp	Leu	His	Asp	Glu	Glu
			100						105					110	
Asp	Glu	Gln	Asp	Ile	Leu	Leu	Ala	Gln	Asp	Leu	Glu	Asp	Met	Trp	Glu
			115						120					125	
Gln	Lys	Phe	Leu	Gln	Phe	Lys	Leu	Gly	Ala	Arg	Ile	Thr	Glu	Ala	Asp
			130						135					140	
Glu	Lys	Asn	Asp	Arg	Thr	Ser	Leu	Asn	Arg	Lys	Leu	Asp	Arg	Asn	Leu
			145						150					155	
Val	Leu	Leu	Val	Arg	Glu	Lys	Phe	Gly	Asp	Gln	Asp	Val	Trp	Ile	Leu
			165						170					175	
Pro	Gln	Ala	Glu	Trp	Gln	Pro	Gly	Glu	Thr	Leu	Arg	Gly	Thr	Ala	Glu
			180						185					190	
Arg	Thr	Leu	Ala	Thr	Leu	Ser	Glu	Asn	Asn	Met	Glu	Ala	Lys	Phe	Leu
			195						200					205	
Gly	Asn	Ala	Pro	Cys	Gly	His	Tyr	Thr	Phe	Lys	Phe	Pro	Gln	Ala	Met
			210						215					220	
Arg	Thr	Glu	Ser	Asn	Leu	Gly	Ala	Lys	Val	Phe	Phe	Phe	Lys	Ala	Leu
			225						230					235	
Leu	Leu	Thr	Gly	Asp	Phe	Ser	Gln	Ala	Gly	Asn	Lys	Gly	His	His	Val
			245						250					255	
Trp	Val	Thr	Lys	Asp	Glu	Leu	Gly	Asp	Tyr	Leu	Lys	Pro	Lys	Tyr	Leu
			260						265					270	
Ala	Gln	Val	Arg	Arg	Phe	Val	Ser	Asp	Leu						
			275						280						

<210> 3595

<211> 1903

<212> DNA

<213> Homo sapiens

<400> 3595

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 120
 agcttcaccc agggctccat cgaggccccc aagaggggct cccgcttctg gatccaggac
 180
 aaaggcccca tcgtggagag ttacatcggt ttcacgcaga gctaccgcga cccctttggt
 240
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 300
 gagcggctgg tggcgagcgc agagcagctg ctgaaggagc tgccctggcc cccaaccttt
 360
 gagaaggaca agttccctcac cctgaacttc acctcccttg atgttctcac cttcgtggc
 420
 tcggcatccc ctgcggcat caacatcccc aactacgatg atctgaggca gacggaaggc
 480
 tttaagaacg tgctgctggg gaatgtgctg gctgtggcct acgccacgca gcgggagaag
 540

cttacctttc tggaggagga tgacaaggac ctgtacatcc tctggaaggg gccctccttc
600
gatgtgcagg tgggcctgca cgagctgctg ggccatggca gtggcaagct ctctgtacag
660
gacgaaaaag gagcattcaa ctttgaccag gaaacagtga tcaaccacaga gacgggagag
720
cagattcaga gctgggtatcg gagcggggag acctgggata gcaagttcag caccatcgcc
780
tccagctacg aagagtgcgg ggctgagagc gtgggtctct acctctgtct ccccccga
840
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900
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960
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1020
gagggactcg ttaccatcac tcccaccaca ggctccgatg ggcccacaga tgcccgggtc
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1260
ctgcgtaagg aatctcggaa gctcattgtt cagcccaaca ctgccttgga aggtaattggc
1320
tcagacgtgc agcttctgga atacgaggcg tcagctgctg gcctcatccg atccttctct
1380
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1440
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1560
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1620
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1680
gatcatttca tctgcactgc catacgtgga gtgagcaaga cagggcttac catcctgtct
1740
accagatgag gaaatggcag ttctgagaag tcactggtct agatcccga ggtggcacgt
1800
gacagctagg gttcaaaacg ttctcaccaa atccaatgct cctcacatat taattttata
1860
accagacaaa taaatattag agacaaccac catcaaaaaa aaa
1903

<210> 3596

<211> 496

<212> PRT

<213> Homo sapiens

<400> 3596

Phe Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val

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	20	25	30
Gln Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu			
	35	40	45
Ala His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro Ile			
	50	55	60
Val Glu Ser Tyr Ile Gly Phe Ile Glu Ser Tyr Arg Asp Pro Phe Gly			
	65	70	75
Ser Arg Gly Glu Phe Glu Gly Phe Val Ala Val Val Asn Lys Ala Met			
	85	90	95
Ser Ala Lys Phe Glu Arg Leu Val Ala Ser Ala Glu Gln Leu Leu Lys			
	100	105	110
Glu Leu Pro Trp Pro Pro Thr Phe Glu Lys Asp Lys Phe Leu Thr Pro			
	115	120	125
Asp Phe Thr Ser Leu Asp Val Leu Thr Phe Ala Gly Ser Gly Ile Pro			
	130	135	140
Ala Gly Ile Asn Ile Pro Asn Tyr Asp Asp Leu Arg Gln Thr Glu Gly			
	145	150	155
Phe Lys Asn Val Ser Leu Gly Asn Val Leu Ala Val Ala Tyr Ala Thr			
	165	170	175
Gln Arg Glu Lys Leu Thr Phe Leu Glu Glu Asp Asp Lys Asp Leu Tyr			
	180	185	190
Ile Leu Trp Lys Gly Pro Ser Phe Asp Val Gln Val Gly Leu His Glu			
	195	200	205
Leu Leu Gly His Gly Ser Gly Lys Leu Phe Val Gln Asp Glu Lys Gly			
	210	215	220
Ala Phe Asn Phe Asp Gln Glu Thr Val Ile Asn Pro Glu Thr Gly Glu			
	225	230	235
Gln Ile Gln Ser Trp Tyr Arg Ser Gly Glu Thr Trp Asp Ser Lys Phe			
	245	250	255
Ser Thr Ile Ala Ser Ser Tyr Glu Glu Cys Arg Ala Glu Ser Val Gly			
	260	265	270
Leu Tyr Leu Cys Leu His Pro Gln Val Leu Glu Ile Phe Gly Phe Glu			
	275	280	285
Gly Ala Asp Ala Glu Asp Val Ile Tyr Val Asn Trp Leu Asn Met Val			
	290	295	300
Arg Ala Gly Leu Leu Ala Leu Glu Phe Tyr Thr Pro Glu Ala Phe Asn			
	305	310	315
Trp Arg Gln Ala His Met Gln Ala Arg Phe Val Ile Leu Arg Val Leu			
	325	330	335
Leu Glu Ala Gly Glu Gly Leu Val Thr Ile Thr Pro Thr Thr Gly Ser			
	340	345	350
Asp Gly Arg Pro Asp Ala Arg Val Arg Leu Asp Arg Ser Lys Ile Arg			
	355	360	365
Ser Val Gly Lys Pro Ala Leu Glu Arg Phe Leu Arg Arg Leu Gln Val			
	370	375	380
Leu Lys Ser Thr Gly Asp Val Ala Gly Gly Arg Ala Leu Tyr Glu Gly			
	385	390	395
Tyr Ala Thr Val Thr Asp Ala Pro Pro Glu Cys Phe Leu Thr Leu Arg			
	405	410	415
Asp Thr Val Leu Leu Arg Lys Glu Ser Arg Lys Leu Ile Val Gln Pro			
	420	425	430
Asn Thr Arg Leu Glu Gly Asn Gly Ser Asp Val Gln Leu Leu Glu Tyr			

	435		440		445	
Glu	Ala	Ser	Ala	Ala	Gly	Leu
	450		455		460	
Glu	Asp	Gly	Pro	Glu	Leu	Glu
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Asp	Ala	Arg	Phe	Trp	Lys	Gly
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<210> 3597

<211> 1090

<212> DNA

<213> Homo sapiens

<400> 3597

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ctgcagaaga
1090

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<210> 3598

<211> 159
 <212> PRT
 <213> Homo sapiens

<400> 3598
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 20 25 30
 Asp Tyr Asn Lys Asp Asp Met Ser Tyr Arg Arg Ile Ser Ala Val Glu
 35 40 45
 Pro Lys Thr Ala Leu Pro Phe Asn Arg Phe Leu Pro Asn Lys Ser Arg
 50 55 60
 Gln Pro Ser Tyr Val Pro Ala Pro Leu Arg Lys Lys Lys Pro Asp Lys
 65 70 75 80
 His Glu Asp Asn Arg Arg Ser Trp Ala Ser Pro Val Tyr Thr Glu Ala
 85 90 95
 Asp Gly Thr Phe Ser Arg Ser Lys Ser Met Ser Asp Val Ser Ala Glu
 100 105 110
 Asp Val Gln Asn Leu Arg Gln Leu Arg Tyr Glu Glu Met Gln Lys Ile
 115 120 125
 Lys Ser Gln Leu Lys Glu Gln Asp Gln Lys Trp Gln Asp Asp Leu Ala
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 Lys Trp Lys Asp Arg Arg Lys Ser Tyr Thr Ser Asp Leu Gln Lys
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<210> 3599
 <211> 691
 <212> DNA
 <213> Homo sapiens

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<210> 3600

<211> 98

<212> PRT

<213> Homo sapiens

<400> 3600

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Asn Lys Leu Gly Pro Cys Met Leu Leu Ala Leu Arg Gly Asn Gln Thr
             20             25             30
Met Val Glu Val Arg Ser Trp Ser Gly Ser Leu Val Gly Trp Leu Ala
             35             40             45
Pro Arg Pro Leu Ser Val Pro Ile Glu His Leu Leu Gly Ala Lys Asn
             50             55             60
Cys Cys Arg His Gly Gly Gln Trp Val Arg Arg Ala Val Pro Ala Val
65             70             75             80
Leu Ser Leu Val Gly Ala Ser Ser Leu His His Ala Val Tyr Leu Phe
             85             90             95
Leu Leu
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<210> 3601

<211> 2963

<212> DNA

<213> Homo sapiens

<400> 3601

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180
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240
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300
gctgctctcg caggcagggg ctctgctgct tacagcagtg cggccatctc ggcttctctc
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720
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ctgccctgcc cagtgccctt tctgggtccca gctactgaaa ccggtgagct gctccagggt
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 2700
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 2820
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 2940
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 2963

<210> 3602

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3602

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 Glu Ala Arg Glu Leu Met Tyr Ser Gly Ala Leu Leu Phe Phe Ser His
 35 40 45
 Gly Gln Gln Asn Ser Ala Ala Asp Leu Ser Met Leu Val Leu Glu Ser
 50 55 60
 Leu Glu Lys Ala Glu Val Glu Val Ala Asp Glu Leu Leu Glu Asn Leu
 65 70 75 80
 Ala Lys Val Phe Ser Leu Met Asp Pro Asn Ser Pro Glu Arg Val Thr
 85 90 95
 Phe Val Ser Arg Ala Leu Lys Trp Ser Ser Gly Gly Ser Gly Lys Leu
 100 105 110
 Gly His Pro Arg Leu His Gln Leu Leu Ala Leu Thr Leu Trp Lys Glu
 115 120 125
 Gln Asn Tyr Cys Glu Ser Arg Tyr His Phe Leu His Ser Ala Asp Gly
 130 135 140
 Glu Gly Cys Ala Asn Met Leu Val Glu Tyr Ser Thr Ser Arg Gly Phe
 145 150 155 160
 Arg Ser Glu Val Asp Met Phe Val Ala Gln Ala Val Leu Gln Phe Leu
 165 170 175
 Cys Leu Lys Asn Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr
 180 185 190
 Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu

195	200	205
Leu Asn Phe Ile Trp Phe Leu Leu Ala Val Asp Gly Gly Lys Leu		
210	215	220
Thr Val Phe Thr Val Leu Cys Glu Gln Tyr Gln Pro Ser Leu Arg Arg		
225	230	235
Asp Pro Met Tyr Asn Glu Tyr Leu Asp Arg Ile Gly Gln Leu Phe Phe		
	245	250
Gly Val Pro Pro Lys Gln Thr Ser Ser Tyr Gly Gly Leu Leu Gly Asn		
	260	265
Leu Leu Thr Ser Leu Met Gly Ser Ser Glu Gln Glu Asp Gly Glu Glu		
	275	280
Ser Pro Ser Asp Gly Ser Pro Ile Glu Leu Asp		
290	295	

<210> 3603

<211> 1082

<212> DNA

<213> Homo sapiens

<400> 3603

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120
agagagccga tgatttttaa atgtgtgttt gtgggtgaaa tggctgcgca ggtcggagcg
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240
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360
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540
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600
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660
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720
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780
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840
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900
gacaaataaa tagcacttea ggacttaata aggagtcctt caggtatctg aaagatgaac
960
agctgtgccg attaaatttg ggtatgcaag aatatcgggt accccaggga gtacaaacac
1020

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 1080
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 1082

<210> 3604

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3604

Met Lys Met Val Lys Pro Arg Glu Pro Met Ile Phe Lys Cys Val Phe
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 20 25 30
 Val Ala Ala Gln Glu Glu Pro Asp Lys Glu Gly Lys Glu Lys Pro His
 35 40 45
 Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Arg Ser Ser Ser
 50 55 60
 Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu
 65 70 75 80
 Ala Pro Pro His Arg Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu
 85 90 95
 Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu
 100 105 110
 Leu Leu Pro Pro Pro Pro Pro Ser Leu Ala Pro Ala Gly Pro Ala
 115 120 125
 Val Ala Ala Pro Leu Pro Ala Pro Ser Thr Arg Pro Ser Ser Pro Ser
 130 135 140
 Arg Leu
 145

<210> 3605

<211> 2004

<212> DNA

<213> Homo sapiens

<400> 3605

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660
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2004

<210> 3606

<211> 324

<212> PRT

<213> Homo sapiens

<400> 3606

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      20           25           30
Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
      35           40           45
Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
      50           55           60
Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
      65           70           75           80
Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
      85           90           95
Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
      100          105          110
Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
      115          120          125
Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
      130          135          140
Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
      145          150          155          160
Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
      165          170          175
Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
      180          185          190
Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
      195          200          205
Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
      210          215          220
Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
      225          230          235          240
Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
      245          250          255
Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
      260          265          270
Leu Asp Arg Ile Gly Gln Leu Phe Phe Gly Val Pro Pro Lys Gln Thr
      275          280          285
Ser Ser Tyr Gly Gly Leu Leu Gly Asn Leu Leu Thr Ser Leu Met Gly
      290          295          300
Ser Ser Glu Gln Glu Asp Gly Glu Glu Ser Pro Ser Asp Gly Ser Pro
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Ile Glu Leu Asp

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<210> 3607

<211> 1726

<212> DNA

<213> Homo sapiens

<400> 3607

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900
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1140
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1260
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1620

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<210> 3608

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3608

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 20 25 30
 Glu Val Lys Trp Ser Val Arg Met Thr Leu Cys Ala Gly Ile Cys Ser
 35 40 45
 Tyr Glu Gly Lys Gly Gly Met Cys Ser Ile Arg Leu Ser Glu Pro Leu
 50 55 60
 Leu Lys Leu Arg Pro Arg Lys Asp Leu Val Glu Thr Leu Leu His Glu
 65 70 75
 Met Ile His Ala Tyr Leu Phe Val Thr Asn Asn Asp Lys Asp Arg Glu
 85 90 95
 Gly His Gly Pro Glu Phe Cys Lys His Met His Arg Ile Asn Ser Leu
 100 105 110
 Thr Gly Ala Asn Ile Thr Val Tyr His Thr Phe His Asp Glu Val Asp
 115 120 125
 Glu Tyr Arg Arg His Trp Trp Arg Cys Asn Gly Pro Cys Gln His Arg
 130 135 140
 Pro Pro Tyr Tyr Gly Tyr Val Lys Arg Ala Thr Asn Arg Glu Pro Ser
 145 150 155
 Ala His Asp Tyr Trp Trp Ala Glu His Gln Lys Thr Cys Gly Gly Thr
 165 170 175
 Tyr Ile Lys Ile Lys Glu Pro Glu Asn Tyr Ser Lys Lys Gly Lys Gly
 180 185 190
 Lys Ala Lys Leu Gly Lys Glu Pro Val Leu Ala Ala Glu Asn Lys Asp
 195 200 205
 Lys Pro Asn Arg Gly Glu Ala Gln Leu Val Ile Pro Phe Ser Gly Lys
 210 215 220
 Gly Tyr Val Leu Gly Glu Thr Ser Asn Leu Pro Ser Pro Gly Lys Leu
 225 230 235 240
 Ile Thr Ser His Ala Ile Asn Lys Thr Gln Asp Leu Leu Asn Gln Asn
 245 250 255
 His Ser Ala Asn Ala Val Arg Pro Asn Ser Lys Ile Lys Val Lys Phe
 260 265 270
 Glu Gln Asn Gly Ser Ser Lys Asn Ser His Leu Val Ser Pro Ala Val
 275 280 285
 Ser Asn Ser His Gln Asn Val Leu Ser Asn Tyr Phe Pro Arg Val Ser
 290 295 300
 Phe Ala Asn Gln Lys Ala Phe Arg Gly Val Asn Gly Ser Pro Arg Ile
 305 310 315 320
 Ser Val Thr Val Gly Asn Ile Pro Lys Asn Ser Val Ser Ser Ser Ser
 325 330 335
 Gln Arg Arg Val Ser Ser Ser Lys Ile Ser Leu Arg Asn Ser Ser Lys

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          340          345          350
Val Thr Glu Ser Ala Ser Val Met Pro Ser Gln Asp Val Ser Gly Ser
      355          360          365
Glu Asp Thr Phe Pro Asn Lys Arg Pro Arg Leu Glu Asp Lys Thr Val
      370          375          380
Phe Asp Asn Phe Phe Ile Lys Lys Glu Gln Ile Lys Ser Ser Gly Asn
      385          390          395          400
Asp Pro Lys Tyr Ser Thr Thr Thr Ala Gln Asn Ser Ser Ser Ser
          405          410          415
Ser Gln Ser Lys Met Val Asn Cys Pro Val Cys Gln Asn Glu Val Leu
          420          425          430
Gly Val Ser Asp
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<210> 3609

<211> 1286

<212> DNA

<213> Homo sapiens

<400> 3609

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120
tgctgcaacc agtgggagca gctgaggggg cggggtggca acgaggatgg gccacagaag
180
ctggacttgg aagctgatgc tgagccccaa gacctcgaga gtacgaacct cttggagagt
240
gaagctccca gggactatct cctcaagttt gcctatatgt tggatttga cagcgacaca
300
gcagacaagt tcttcgagct gntttggaac caaagggtgc aagagggtgc tgtgtcctat
360
caannctacc cettgtcgcc caccgcttc acccattgtg agcagggtgc gggcgagggt
420
gccctggacc gaggcaccta ctactgggag gtggagatta tcgagggtgc ggtcagcatg
480
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540
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600
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660
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720
aaggcctccc ggccccgcg ggggtggcatc ccggcctccc ccattgacct cttccagagc
780
cgccctggaca gtcactttgc ggggctcttc acccacagac tcaagcctgc cttcttctcg
840
gagagtgtgg acgccactt gcagatcggy cccctcaaga agtcctgcat atccgtgctg
900
aagaggaggt gatgccgggc acgggcgctc ctgctgacct ctctgtctca ggaagctgcc
960
tctctgggga cctctccttc gtctgggaag gcaaccagcat gagtcccaca caccagcct
1020

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tctcatttct agaggtctcc acctttttat acactcagcc ttccctctcc caggcaggag
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 gacccccaga cctctgttccc ctgcagacct cacttctggg agacagagct acagctggga
 1140
 cagctccaag ctaccctaac ccctccttcc ccaggtttct agaatagtgt ctggcatgta
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 1286

<210> 3610

<211> 268

<212> PRT

<213> Homo sapiens

<400> 3610

Met Leu Ala Val Ala Cys Val Asn Gln Trp Glu Gln Leu Arg Gly Pro
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 Gly Gly Asn Glu Asp Gly Pro Gln Lys Leu Asp Leu Glu Ala Asp Ala
 20 25 30
 Glu Pro Gln Asp Leu Glu Ser Thr Asn Leu Leu Glu Ser Glu Ala Pro
 35 40 45
 Arg Asp Tyr Phe Leu Lys Phe Ala Tyr Ile Val Asp Leu Asp Ser Asp
 50 55 60
 Thr Ala Asp Lys Phe Leu Gln Leu Xaa Trp Asn Gln Arg Cys Gln Glu
 65 70 75 80
 Gly Ala Val Ser Tyr Gln Xaa Tyr Pro Leu Ser Pro Thr Arg Phe Thr
 85 90 95
 His Cys Glu Gln Val Leu Gly Glu Gly Ala Leu Asp Arg Gly Thr Tyr
 100 105 110
 Tyr Trp Glu Val Glu Ile Ile Glu Gly Trp Val Ser Met Gly Val Met
 115 120 125
 Ala Ala Asp Phe Ser Pro Gln Glu Pro Tyr Asp Arg Gly Arg Leu Gly
 130 135 140
 Arg Asn Ala His Ser Cys Cys Leu Gln Trp Asn Gly Arg Ser Phe Ser
 145 150 155 160
 Val Trp Phe His Gly Leu Glu Ala Pro Leu Pro His Pro Phe Ser Pro
 165 170 175
 Thr Val Gly Val Cys Leu Glu Tyr Ala Asp Arg Ala Leu Ala Phe Tyr
 180 185 190
 Ala Val Arg Asp Gly Lys Met Ser Leu Leu Arg Arg Leu Lys Ala Ser
 195 200 205
 Arg Pro Arg Arg Gly Gly Ile Pro Ala Ser Pro Ile Asp Pro Phe Gln
 210 215 220
 Ser Arg Leu Asp Ser His Phe Ala Gly Leu Phe Thr His Arg Leu Lys
 225 230 235 240
 Pro Ala Phe Phe Leu Glu Ser Val Asp Ala His Leu Gln Ile Gly Pro
 245 250 255
 Leu Lys Lys Ser Cys Ile Ser Val Leu Lys Arg Arg
 260 265

<210> 3611

<211> 816

<212> DNA

<213> Homo sapiens

<400> 3611

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 120
 caatggagac agttggaaaa cctgtacttc agagaaaaga agttttccgt ggaagttcat
 180
 gaccacgca gggcttcagt gacaaggagg acgtttgggc acagcggcat tgcagtgcac
 240
 acgtgggtatg catgtccggc attgatcaag tccatctggg ctatggccat aagccaacac
 300
 cagttctatc tggacagaaa gcagagtaag tccaaaatcc atgcagcacg cagcctgagt
 360
 gagatcgcca tcgacctgac cgagacgggg acgctgaaga cctcgaagct ggccaacatg
 420
 ggtagcaagg ggaagatcat cagcggcagc agcggcagcc tgctgtcttc aggttctcag
 480
 gaatcagata gctcgcagtc ggccaagaag gacatgctgg ctgccttgaa gtccaggcag
 540
 gaagctcttg aggaaacccct gcgtcagagg ctggaggaac tgaagaagct gtgtctccga
 600
 gaagctgagc tcacgggcaa gctgccagta gaatatcccc tggatccagg ggaggaacca
 660
 cccattgttc ggagaagaat aggaacagcc ttcaaaactgg atgaacagaa aatcctgccc
 720
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 780
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 816

<210> 3612

<211> 272

<212> PRT

<213> Homo sapiens

<400> 3612

Tyr	Gly	Val	His	Tyr	Tyr	Ala	Val	Lys	Asp	Lys	Gln	Gly	Ile	Pro	Trp
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Trp	Leu	Gly	Leu	Ser	Tyr	Lys	Gly	Ile	Phe	Gln	Tyr	Asp	Tyr	His	Asp
			20					25					30		
Lys	Val	Lys	Pro	Arg	Lys	Ile	Phe	Gln	Trp	Arg	Gln	Leu	Glu	Asn	Leu
			35				40					45			
Tyr	Phe	Arg	Glu	Lys	Lys	Phe	Ser	Val	Glu	Val	His	Asp	Pro	Arg	Arg
	50					55					60				
Ala	Ser	Val	Thr	Arg	Arg	Thr	Phe	Gly	His	Ser	Gly	Ile	Ala	Val	His
	65				70				75					80	
Thr	Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala
			85						90					95	
Ile	Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys
			100					105					110		
Ile	His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu

<400> 3614

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Met Gln Ser Val Thr Arg Pro Gly Ile Pro Met Cys Ala Gln Leu Ala
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His Ser Ile Ile Val Pro Arg Lys Leu Leu Gln Phe Ile Lys Ser Ser
      20           25           30
Gly Leu Gly Ile Ser Leu Asn Ser Lys Arg Arg Lys Glu Glu Thr Phe
      35           40           45
Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys
      50           55           60
Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg
65           70           75           80
Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr
      85           90           95
Arg Ala Arg Ile Ser Gly Arg Ala His Thr His Ser Tyr Thr Arg Thr
      100          105          110
Gln Thr Arg Ser Glu Lys Ser Pro Pro Pro
      115          120

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<210> 3615

<211> 1388

<212> DNA

<213> Homo sapiens

<400> 3615

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120
cagtccccgc gagtccagat gcctgtccag cctccaagca aagacacaga agagatggaa
180
gcagagggtg attctgtctg tgagatgaat ggggaggagg aagagagtga ggaggagcgg
240
agcggcagcc agacagagtc agaagaggag agctccgaga tggatgatga ggactatgag
300
cgagcccgca gcgagtgtgt cagtgaagat ctggacctag agaagcagtt ctccgagcta
360
aaggagaagt tgttcaggga acgactgagt cagctgcggt tgccggctgga ggaagtgggg
420
gctgagagag cccctgaata cacggagccc cttggggggc tgcagcggag cctcaagatt
480
cgcatctcag tggcagggat ctacaagggc ttctgtctgg atgtgatcag gaataagta
540
gaatgtgagc tgcaggggagc caaacagcac ctggagagtg agaagctgct gctctatgac
600
acgctgcagg gggagctgca ggagcggatc cagaggctgg aggaggaccg ccagagcctg
660
gacctcagct ctgaatggtg ggacgacaaa ctgcacgcca gaggcagctc caggtcttgg
720
gactccctgc cggccagcaa gaggaagaag gcacctctgg tttctggccc atacatcgtg
780
tacatgcttc aagagatcgg catcctggag gactggacag ccatcaaaaa ggctagggca
840
gctgtgtccc ctcaagaag aaaatcggat gacaggcgga cccacaggcc cctcagggtc
900

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tgccccgccca ggctcctgtg gtgctgctgg gccctccac tccatctggc actggcctgg
 960
 actcctcctc tgccctcctc gaggcctgca cagctgtggc cgtggagctg acctgaccag
 1020
 gcaaggctgc tgtctccatc cctgagccgc ctgccacctc ccactcctga agatccatct
 1080
 cttggggctc ccctgacaga gaagacagcc gaagtcaaag ccacatcctc ttgctgatgt
 1140
 tggatgcagg ctgtccggcc tcagggccag ggagccagtt tccactgtgc gggaactctg
 1200
 agtcagacgt gattatctgg gggctctgcc accctggctg gatctggagg caagatgcc
 1260
 ggccccccag gtgttctcag ggcagttctt ggtgtctgct tctcagattc caaggactgg
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 1380
 aaaaaaaaa
 1388

<210> 3616

<211> 290

<212> PRT

<213> Homo sapiens

<400> 3616

Met Pro Val Gln Pro Pro Ser Lys Asp Thr Glu Glu Met Glu Ala Glu
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 Gly Asp Ser Ala Ala Glu Met Asn Gly Glu Glu Glu Ser Glu Glu
 20 25 30
 Glu Arg Ser Gly Ser Gln Thr Glu Ser Glu Glu Glu Ser Ser Glu Met
 35 40 45
 Asp Asp Glu Asp Tyr Glu Arg Arg Arg Ser Glu Cys Val Ser Glu Met
 50 55 60
 Leu Asp Leu Glu Lys Gln Phe Ser Glu Leu Lys Glu Lys Leu Phe Arg
 65 70 75 80
 Glu Arg Leu Ser Gln Leu Arg Leu Arg Leu Glu Glu Val Gly Ala Glu
 85 90 95
 Arg Ala Pro Glu Tyr Thr Glu Pro Leu Gly Gly Leu Gln Arg Ser Leu
 100 105 110
 Lys Ile Arg Ile Gln Val Ala Gly Ile Tyr Lys Gly Phe Cys Leu Asp
 115 120 125
 Val Ile Arg Asn Lys Tyr Glu Cys Glu Leu Gln Gly Ala Lys Gln His
 130 135 140
 Leu Glu Ser Glu Lys Leu Leu Tyr Asp Thr Leu Gln Gly Glu Leu
 145 150 155 160
 Gln Glu Arg Ile Gln Arg Leu Glu Glu Asp Arg Gln Ser Leu Asp Leu
 165 170 175
 Ser Ser Glu Trp Trp Asp Asp Lys Leu His Ala Arg Gly Ser Ser Arg
 180 185 190
 Ser Trp Asp Ser Leu Pro Pro Ser Lys Arg Lys Lys Ala Pro Leu Val
 195 200 205
 Ser Gly Pro Tyr Ile Val Tyr Met Leu Gln Glu Ile Gly Ile Leu Glu
 210 215 220
 Asp Trp Thr Ala Ile Lys Lys Ala Arg Ala Ala Val Ser Pro Gln Lys

```

225                230                235                240
Arg Lys Ser Asp Asp Arg Arg Thr His Arg Pro Leu Arg Val Cys Pro
                245                250                255
Ala Arg Leu Leu Trp Cys Cys Trp Ala Leu Pro Leu His Leu Ala Leu
                260                265                270
Ala Trp Thr Pro Pro Leu Pro Ser Ser Arg Pro Ala Gln Leu Trp Pro
                275                280                285
Trp Ser
290

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<210> 3617

<211> 804

<212> DNA

<213> Homo sapiens

<400> 3617

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ggctttaaca gcaagggaga ggtgcatggg atcaatggga cccaatgggg ccagactctg
120
aggatgggat ggtagtagtg aaggacatag gatgggggta gagtgtggag actttttgaa
180
atagtataga tgaatgccct gaggggactg tgaacaagct ctgccctct taggaaatca
240
atggggaatc aactaaatta aataaaaaat ggggtcaaga ttaagaggca gggtcaccca
300
gggaatgggt taggtctctg catctttgaa ggggttgaa gggctggcag gaggcactga
360
gggccctggg ccctgggcca ggtggtgaat tacagcgact cacggacagc agaagagatc
420
tgtgagagca gctccaagat gatcaccttc atcgacctgg caggccacca taagtaccta
480
cacaccacca tctttggcct cacatcatac tgccccgact gcgccctgtc cctcgtcagt
540
gccaacactg ggattgctgg caccacaagg gaacatctgg ggctggccct ggccctgaaa
600
gtgcccttct tcatcgtggt cagcaagatc gacctatgtg ccaagaccac agtggagagg
660
acagtaagcc agctggagcg ggtcctcaag cagcctggct gccacaaggt ccccatgctg
720
gtcacctctg aggatgatgc cgtcactgct gccacagcag ttgctcagtc acccaatgtc
780
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804

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<210> 3618

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3618

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Gly Pro Trp Ala Leu Gly Gln Val Val Asn Tyr Ser Asp Ser Arg Thr
1                5                10                15
Ala Glu Glu Ile Cys Glu Ser Ser Ser Lys Met Ile Thr Phe Ile Asp

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                20                25                30
Leu Ala Gly His His Lys Tyr Leu His Thr Thr Ile Phe Gly Leu Thr
                35                40                45
Ser Tyr Cys Pro Asp Cys Ala Leu Leu Leu Val Ser Ala Asn Thr Gly
                50                55                60
Ile Ala Gly Thr Thr Arg Glu His Leu Gly Leu Ala Leu Ala Leu Lys
        65                70                75                80
Val Pro Phe Phe Ile Val Val Ser Lys Ile Asp Leu Cys Ala Lys Thr
                85                90                95
Thr Val Glu Arg Thr Val Arg Gln Leu Glu Arg Val Leu Lys Gln Pro
                100                105                110
Gly Cys His Lys Val Pro Met Leu Val Thr Ser Glu Asp Asp Ala Val
                115                120                125
Thr Ala Ala Gln Gln Phe Ala Gln Ser Pro Asn Val Thr Pro Ile Phe
                130                135                140
Thr Leu Ser Ser
145

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<210> 3619

<211> 948

<212> DNA

<213> Homo sapiens

<400> 3619

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acgcgtcggc agagggtggct tcgtcccgcg gagtcaggc ttcagctcct ggcttctctt
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120
aggtgtcctc tcttgagaag aactgtccat accatggtgg tggtaaggct ttcaccagtt
180
ctcaggatgc ccatagggat ggggtgaagcc tgccctggcct gtggtgcttt ccagtggcgg
240
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300
tcttgggtgc ggtgctggca gcggtctctgt ggaagcatgt cgggctgcgt gagcatgcag
360
ccacactgga ggaggagctg gccctcagcc gacaggccac agagccagcc ccagcactga
420
ggatcgacta cccaaggca ctgcagatcc tgatggaggg cggcacacac atggtgtgca
480
cgggcgcgac gcacacagac cgcctctgcc gcttcaagtg gctctgtac tccaacgagg
540
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600
ggcgcttcca gccagccctg ctcgacctat ccacogtga ggaccacaac actcagtact
660
tcaacttcgt ggagctgcct gctgctgccc tgcgcttcat ccccaagccg gtgttcgtgc
720
cagacgtggc cctcatcgcc aaccgcttca accccgacaa cctcatgcac gtctttcatg
780
acgacctgct gccactcttc tacaccctgc ggcagtttcc cggcctggcc cagcaggcac
840
ggctcttctt catggagggc tggggcgagg gtgcacactt cgacctctac aagctgctca
900

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gccccaaagca gcctctcctg cgggcacagc tgaagaccct gggccggc
948

<210> 3620

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3620

Trp	Arg	Ala	Ala	His	Thr	Trp	Cys	Ala	Arg	Ala	Ala	Arg	Thr	Gln	Thr
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Ala	Ser	Ala	Ala	Ser	Ser	Gly	Ser	Ala	Thr	Pro	Thr	Arg	Leu	Arg	Ser
				20				25					30		
Ser	Ser	Ser	Ser	Met	Ala	Thr	Pro	Leu	Ser	Cys	Cys	Pro	Thr	Trp	Ala
				35			40					45			
Pro	Gly	Ala	Ser	Ser	Gln	Pro	Cys	Ser	Thr	Tyr	Pro	Pro	Trp	Arg	Thr
				50			55				60				
Thr	Thr	Leu	Ser	Thr	Ser	Thr	Ser	Trp	Ser	Cys	Leu	Leu	Leu	Pro	Cys
				65		70				75				80	
Ala	Ser	Cys	Pro	Ser	Arg	Cys	Ser	Cys	Gln	Thr	Trp	Pro	Ser	Ser	Pro
				85				90						95	
Thr	Ala	Ser	Thr	Pro	Thr	Thr	Ser	Cys	Thr	Ser	Phe	Met	Thr	Thr	Cys
				100				105					110		
Cys	His	Ser	Ser	Thr	Pro	Cys	Gly	Ser	Phe	Pro	Ala	Trp	Pro	Thr	Arg
				115			120					125			
His	Gly	Ser	Ser	Ser	Trp	Arg	Ala	Gly	Ala	Arg	Val	His	Thr	Ser	Thr
				130		135				140					
Ser	Thr	Ser	Cys	Ser	Ala	Pro	Ser	Ser	Leu	Ser	Cys	Gly	His	Ser	
				145		150				155					

<210> 3621

<211> 2934

<212> DNA

<213> Homo sapiens

<400> 3621

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120
gggttaaaagg aaggatttgc acaccttcca cttagggctc gggtaatccc aaactctctc
180
ccttaattgg gcttcgagt ctaaaaagca gatcgttctc tctgaggttt tcccaacagt
240
acctcaagaa aataacatct gttttttgta acgttccaca gtattcggaa ttggctacag
300
aacataataa gatccttgcc agcacattac agaataatct tgttgaacct tcttgagaat
360
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<211> 228

<212> PRT

<213> Homo sapiens

<400> 3622

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 Glu Ser Gly Phe Asp Pro Asn Ile Arg Asp Ser Arg Gly Arg Thr Gly
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 His Lys Phe Gly Ala Asp Leu Leu Ala Thr Asp Tyr Gln Gly Asn Thr
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 Val Leu Ala Lys Arg Arg Gly Val Asn Lys Asp Val Ile Arg Leu Leu
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<210> 3623

<211> 586

<212> DNA

<213> Homo sapiens

<400> 3623

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<210> 3624

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3624

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Arg Asp Ile Thr Lys Glu Glu Ile Ser Lys Phe Ser Lys Ala Glu Trp
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Glu Lys Lys Arg Met Asp Lys Ala Ile Gly Tyr Ser Phe Ala Ile Val
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<210> 3626

<211> 551

<212> PRT

<213> Homo sapiens

<400> 3626

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Pro Trp Gly Gly Ser Pro Ala Lys Pro Ser Thr Asn Gly Thr Thr Thr
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425                430                435
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<210> 3627

<211> 1760

<212> DNA

<213> Homo sapiens

<400> 3627

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<210> 3628

<211> 440

<212> PRT

<213> Homo sapiens

<400> 3628

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 Cys Lys Gln Cys Gln Glu Thr Glu Ile Thr Thr Lys Asn Glu Ile Phe
 325 330 335
 Ser Leu Ser Leu Cys Gly Pro Met Ala Ala Tyr Val Asn Pro His Gly
 340 345 350
 Tyr Val His Glu Thr Leu Thr Val Tyr Lys Ala Cys Asn Leu Asn Leu
 355 360 365
 Ile Gly Arg Pro Ser Thr Glu His Ser Trp Phe Pro Gly Tyr Ala Trp
 370 375 380
 Thr Val Ala Gln Cys Lys Ile Cys Ala Ser His Ile Gly Trp Lys Phe
 385 390 395 400
 Thr Ala Thr Lys Lys Asp Met Ser Pro Gln Lys Phe Trp Gly Leu Thr

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                405                410                415
Arg Ser Ala Leu Leu Pro Thr Ile Pro Asp Thr Glu Asp Glu Ile Ser
                420                425                430
Pro Asp Lys Val Ile Leu Cys Leu
                435                440

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<210> 3629
 <211> 695
 <212> DNA
 <213> Homo sapiens

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<400> 3629
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120
acggcgatg ccatgctgcc ctggggcatg cgggaacgag ccgtcgcggt cctgcctcttc
180
tcactctcgc atctgctggt cctcgggctg tatcttgggc cacagccgga ctcacggcct
240
gcactgtctc cgcagttggc agcaaacgca gtgctgttcc tgtgcgggaa cgtggcagga
300
gtgtaccaca aggcgctgat ggagcgcgcc ctgcgggcca cgttcgggga ggcaactcagc
360
tcctctgact caccggggcg gctggacacc gagaagaagc accaggtcag cggggcctag
420
gaaggtcaga gcagcgctcc gagggaggag ttgcttagat tacataacgg ggctcctcca
480
caagttgagt gactctgggc aggtttcttg acctgtttct tcttttgtat aaaatgtggg
540
tattgccccat cttagaaggt tgtgaggtcc aaacaaacca aagcttataa aaagcacttt
600
agagcattat gatattaagt gaactcccat tcaggtgttg atactgggag tttagtcact
660
aaaggtgatc agtgtaggat ggagtgctgg ggccc
695

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<210> 3630
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 3630
Thr Arg Pro Leu Ser Gly Leu Val Trp Val Ala Leu Leu Ala Leu Gly
1      5      10      15
His Ala Phe Leu Phe Thr Gly Gly Val Val Ser Ala Trp Asp Gln Val
20      25      30
Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
35      40      45
Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His
50      55      60
Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro
65      70      75      80
Ala Leu Leu Pro Gln Leu Ala Ala Asn Ala Val Leu Phe Leu Cys Gly

```



```

                20                25                30
Ile Thr Thr Glu Gly Lys Tyr Trp Lys Ser Arg Ile Glu Ile Val Ile
      35                40                45
Arg Glu Tyr His Lys Trp Arg Thr Tyr Phe Lys Lys Arg Leu Gln Gln
      50                55                60
His Lys Asp Glu Asp Leu Ser Ser Leu Val Gln Asp Asp Asp Met Leu
      65                70                75                80
Tyr Trp His Lys His Gly Asp Gly Trp Lys Thr Pro Val Pro Met Glu
      85                90                95
Glu Asp Pro Leu Leu Asp Thr Asp Met Leu Met Ser Glu Phe Ser Asp
      100                105                110
Thr Leu Phe Ser Thr Leu Ser Ser His Gln Pro Val Ala Trp Pro Asn
      115                120                125
Pro Arg Glu Ile Ala His Leu Gly Asn Ala Asp Met Ile Gln Pro Gly
      130                135                140
Leu Ile Pro Leu Gln Pro Asn Leu Asp Phe Met Asp Thr Phe Glu Pro
      145                150                155                160
Phe Gln Asp Leu Phe Ser Ser Ser Arg Ser Ile Phe Gly Ser Met Leu
      165                170                175
Pro Ala Ser Ala Ser Ala Pro Val Pro Asp Pro Asn Asn Pro Pro Ala
      180                185                190
Gln Glu Ser Ile Leu Pro Thr Thr Ala Leu Pro Thr Val Ser Leu Pro
      195                200                205
Asp Ser Leu Ile Ala Pro Pro Thr Ala Pro Ser Leu Ala Arg
      210                215                220

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<210> 3633

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 3633

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gcagaagggc tgaagtgaac ggatgttcac tgacctgtca gtggaatcga aagtctctca
120
aggagagcct gggcaagcat tcttaggttg atgctggggc ccagagtagc agtgagcatc
180
ctgtgtgaag atggcatttc tcaactgatta ttggaaaagc acaagagcca cgtgctggag
240
ccattgtcca gccttgccct ggaggagcag tgtctggcct tgcacctaga ttggtccact
300
gggaaaactg gaagggccgg ggaccagccc ttgaagatca tcagcagtga ctccacaggg
360
cagctccacc tcctgatggg gaatgagacg aggccaggcg tgcagaaagt ggcctcatgg
420
caggcacatc aattcgagcg ctggattgct gctttcaatt actggcatcc agaaattgtg
480
tattcagggg gcgacgatgg ccttctgagg ggctgggaca ccaggggtacc cggcaaat
540
ctcttcacca gcnaaaagac acaccatnng ggtgtgtgca gcatccagag cagccctcat
600
cgggagcaca tcctggccac gggaagctat gatgaacaca tcctactgtg ggacacacga
660

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aacatgaagc agccgttggc agatacgccct gtgcagggtg gggatatggag aatcaagtgg
 720
 caccctttcc accaaccacct gctcctggcc gcctgcatgc acagtggcct taagatcctc
 780
 aactgcaaaa aggcaatgga ggagaggcag gaggcgacgg tcctgacatc tcacacattg
 840
 cccgactcgc tgggtgatgg agccgactgg tcctggctgc tcttccttcc tctgcagcgg
 900
 gccccctcgt ggtcctttcc tagcaaccta ggaaccaaga cggcagacct gaaggggtgca
 960
 agcgagtgtc caacaccctg tcatgaatgc agagaggata acgatgggga gggccatgcc
 1020
 agaccccaga gtggaatgaa gccactcaca gagggcatga ggaagaatgg cacctggctg
 1080
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 1140
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 1200
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 1260
 agtgagtgcc cgggaccacc tcatacagaga tgcttactgc agccctgcag gtgcctgtgc
 1320
 actgatggaa tccacagtgt agtcagaaaa gctgttgact tctcttaaat cagcttccct
 1380
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 1440
 gtttccagct tgcagatttg ttaagtttct caggcagatt ttgactttca gcctttcata
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 1570

<210> 3634

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3634

Met	Val	Asn	Glu	Thr	Arg	Pro	Arg	Leu	Gln	Lys	Val	Ala	Ser	Trp	Gln
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Ala	His	Gln	Phe	Glu	Ala	Trp	Ile	Ala	Ala	Phe	Asn	Tyr	Trp	His	Pro
		20					25						30		
Glu	Ile	Val	Tyr	Ser	Gly	Gly	Asp	Asp	Gly	Leu	Leu	Arg	Gly	Trp	Asp
		35				40					45				
Thr	Arg	Val	Pro	Gly	Lys	Phe	Leu	Phe	Thr	Ser	Xaa	Lys	Thr	His	His
		50			55				60						
Xaa	Gly	Val	Cys	Ser	Ile	Gln	Ser	Ser	Pro	His	Arg	Glu	His	Ile	Leu
65				70				75					80		
Ala	Thr	Gly	Ser	Tyr	Asp	Glu	His	Ile	Leu	Leu	Trp	Asp	Thr	Arg	Asn
		85					90						95		
Met	Lys	Gln	Pro	Leu	Ala	Asp	Thr	Pro	Val	Gln	Gly	Gly	Val	Trp	Arg
		100					105						110		
Ile	Lys	Trp	His	Pro	Phe	His	His	His	Leu	Leu	Leu	Ala	Ala	Cys	Met

115	120	125
His Ser Gly Phe Lys Ile Leu Asn Cys Gln Lys Ala Met Glu Glu Arg		
130	135	140
Gln Glu Ala Thr Val Leu Thr Ser His Thr Leu Pro Asp Ser Leu Val		
145	150	155
Tyr Gly Ala Asp Trp Ser Trp Leu Leu Phe Arg Ser Leu Gln Arg Ala		
165	170	175
Pro Ser Trp Ser Phe Pro Ser Asn Leu Gly Thr Lys Thr Ala Asp Leu		
180	185	190
Lys Gly Ala Ser Glu Leu Pro Thr Pro Cys His Glu Cys Arg Glu Asp		
195	200	205
Asn Asp Gly Glu Gly His Ala Arg Pro Gln Ser Gly Met Lys Pro Leu		
210	215	220
Thr Glu Gly Met Arg Lys Asn Gly Thr Trp Leu Gln Ala Thr Ala Ala		
225	230	235
Thr Thr Arg Asp Cys Gly Val Asn Pro Glu Glu Ala Asp Ser Ala Phe		
245	250	255
Ser Leu Leu Ala Thr Cys Ser Phe Tyr Asp His Ala Leu His Leu Trp		
260	265	270
Glu Trp Glu Gly Asn		
275		

<210> 3635

<211> 835

<212> DNA

<213> Homo sapiens

<400> 3635

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 120
 gttttactta aagatgaacc ccagcagact gctgctcaga tgggttgctg gccaatccag
 180
 cctctgggca tgcctcaagc ttctcctctg gcggcaggtc ccttgccctc aggggtccatc
 240
 gcaaatctta cagaactgca aggagtata gttggacagc cagtactggg ccaagcacag
 300
 ttggcagggg tggggcaagg aattctgaca gaaacacaac aagggttaat ggtagccagc
 360
 cctgctcaga ccctcaatga cagcctggat gacatcatgg cagcagtcag tgggaagagca
 420
 tctgcaatgt caaacactcc taccacagat attgctgcat ccatttccca acctcagact
 480
 ccaactccaa gtctcatcat ctctccttca gccatgcttc ctatctaccc tgccattgat
 540
 attgatgcac agactgagag taatcatgac acggcgctaa cacttgccctg tgctggtggc
 600
 cagcaggaaac tgggtacaaac actgctagag agaggagcta gtatagagca ccgagacaag
 660
 aaagggttta ctccactcat cttggctgcc acagctggtc atgttggtgt tgggaaata
 720
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 780

tccttggcctt gttctggggg aagacaggag gtggtggagc tattgttagc tcgag
835

<210> 3636

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3636

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20 25 30
Ala Arg Leu Gln Gln Val Asp Pro Val Leu Leu Lys Asp Glu Pro Gln
35 40 45
Gln Thr Ala Ala Gln Met Gly Cys Ala Pro Ile Gln Pro Leu Ala Met
50 55 60
Pro Gln Ala Leu Pro Leu Ala Ala Gly Pro Leu Pro Pro Gly Ser Ile
65 70 75 80
Ala Asn Leu Thr Glu Leu Gln Gly Val Ile Val Gly Gln Pro Val Leu
85 90 95
Gly Gln Ala Gln Leu Ala Gly Leu Gly Gln Gly Ile Leu Thr Glu Thr
100 105 110
Gln Gln Gly Leu Met Val Ala Ser Pro Ala Gln Thr Leu Asn Asp Thr
115 120 125
Leu Asp Asp Ile Met Ala Ala Val Ser Gly Arg Ala Ser Ala Met Ser
130 135 140
Asn Thr Pro Thr His Ser Ile Ala Ala Ser Ile Ser Gln Pro Gln Thr
145 150 155 160
Pro Thr Pro Ser Pro Ile Ile Ser Pro Ser Ala Met Leu Pro Ile Tyr
165 170 175
Pro Ala Ile Asp Ile Asp Ala Gln Thr Glu Ser Asn His Asp Thr Ala
180 185 190
Leu Thr Leu Ala Cys Ala Gly Gly His Glu Glu Leu Val Gln Thr Leu
195 200 205
Leu Glu Arg Gly Ala Ser Ile Glu His Arg Asp Lys Lys Gly Phe Thr
210 215 220
Pro Leu Ile Leu Ala Ala Thr Ala Gly His Val Gly Val Val Glu Ile
225 230 235 240
Leu Leu Asp Asn Gly Ala Asp Ile Glu Ala Gln Ser Glu Arg Thr Lys
245 250 255
Asp Thr Pro Leu Ser Leu Ala Cys Ser Gly Gly Arg Gln Glu Val Val
260 265 270
Glu Leu Leu Leu Ala Arg
275

<210> 3637

<211> 2128

<212> DNA

<213> Homo sapiens

<400> 3637

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120
cctgcccaacc cctgctcttc caggtcgggc cccgggggtc tgccgctgtt agggacagag
180
gcaaagaagg gcaggacggg cgggtttccc gtggatgttc ccgccgaga aagacagcaa
240
gttgtgtgtg cgcgggggac gcgggaggga aggtagccgc cgcggccag ccatggacca
300
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360
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420
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660
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720
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780
atgggtgtgt gtgtttccga cctcatctcc aggacagtgg gaagagtggc tggaggaatt
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cagtttcttg ggggcttgtt gattggtgct ggctgtgcc tctacccctt gggctgggac
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1020
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1080
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1140
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1200
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1260
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1380
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1560
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1620
tgggagggtt agtgggtgat ttctcctctg tttctttttt aatatacatt taaaatacag
1680

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 1740
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 aggagagaat tcagccgaag atatgagagt aatgagagac attttccagt cattggatcg
 1980
 tgttttcttt tgtccattat tgtactgtgc tgtaccacat ttatttctat attcattttg
 2040
 taaaaaatatt aaaagtgcata tttgtttgt atttgaaaat ctctgtgaat aaattctctc
 2100
 tttgatcaat aaaaaaaaaa aaaaaaaaa
 2128

<210> 3638

<211> 200

<212> PRT

<213> Homo sapiens

<400> 3638

Met Ala Ser Ser Leu Thr Cys Thr Gly Val Ile Trp Ala Leu Leu Ser
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 Phe Leu Cys Ala Ala Thr Ser Cys Val Gly Phe Phe Met Pro Tyr Trp
 20 25 30
 Leu Trp Gly Ser Gln Leu Gly Lys Pro Val Ser Phe Gly Thr Phe Arg
 35 40 45
 Arg Cys Ser Tyr Pro Val His Asp Glu Ser Arg Gln Met Met Val Met
 50 55 60
 Val Glu Glu Cys Gly Arg Tyr Ala Ser Phe Gln Gly Ile Pro Ser Ala
 65 70 75 80
 Glu Trp Arg Ile Cys Thr Ile Val Thr Gly Leu Gly Cys Gly Leu Leu
 85 90 95
 Leu Leu Val Ala Leu Thr Ala Leu Met Gly Cys Cys Val Ser Asp Leu
 100 105 110
 Ile Ser Arg Thr Val Gly Arg Val Ala Gly Gly Ile Gln Phe Leu Gly
 115 120 125
 Gly Leu Leu Ile Gly Ala Gly Cys Ala Leu Tyr Pro Leu Gly Trp Asp
 130 135 140
 Ser Glu Glu Val Arg Gln Thr Cys Gly Tyr Thr Ser Gly Gln Phe Asp
 145 150 155 160
 Leu Gly Lys Cys Glu Ile Gly Trp Ala Tyr Tyr Cys Thr Gly Ala Gly
 165 170 175
 Ala Thr Ala Ala Met Leu Leu Cys Thr Trp Leu Ala Cys Phe Ser Gly
 180 185 190
 Lys Lys Gln Lys His Tyr Pro Tyr
 195 200

<210> 3639

<211> 726

<212> DNA

<213> Homo sapiens

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<400> 3639
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120
aagactaaca gtgggtatct ctcagcggga ttataaatgt ttgtgttttt tttttttttt
180
tgtacatttt agtatttttt gaaatttttt taataagcgt gtattacata cagtaaaca
240
aagcacatta atgtaggcag attatcaatg ttatgcattt cactgattgc atatctcttt
300
ttttatcaat ggtgaacatt gcaaatgatt gatacgtttt tcttaggaag tggcattgcc
360
acaaatgggt tttccaacac cagcagggcc tgagagtgtc atcaccatac actcttgccg
420
gcaataaaaa aatttcacct tttaatggat ttaaaaggga aaagtgtggg tggtgggttc
480
tccagggcatt ttctttcatt atgagtgaac tttttctgaa aggaacgtga tctcgttttc
540
tagccgcgat aagcattttt ccaacaagac ccactgtacc agtctctggga tctccacacc
600
tgtgccttct ccctgctctt tctaggctct gattctcacc tctgcctgtg taataaccct
660
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720
taagat
726

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<210> 3640

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3640

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Met Leu His Ala Ala Arg Lys Arg Asp His Val Pro Phe Arg Lys Met
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Ser Leu Ile Met Lys Glu Met Pro Trp Arg Thr Gln His Pro Asn Phe
20          25          30
Ser Leu Leu Asn Pro Leu Lys Gly Glu Ile Phe Leu Leu Pro Ala Arg
35          40          45
Val Tyr Gly Asp Asp Thr Leu Arg Pro Cys Trp Cys Trp Lys Asn His
50          55          60
Leu Trp Gln Cys His Phe Leu Arg Lys Thr Tyr Gln Ser Phe Ala Met
65          70          75          80
Phe Thr Ile Asp Lys Lys Arg Asp Met Gln Ser Val Lys Cys Ile Thr
85          90          95
Leu Ile Ile Cys Leu His
100

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<210> 3641

<211> 455

<212> DNA

<213> Homo sapiens

<400> 3641
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 60
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 120
 agtcccggag cagtccacgc agccggggacc ttgccccgct ggaacgcaga agcgcccggtg
 180
 gagctcgaga cgctcgcgcg ctcacctcct gggccccctgt gcgtggggaa gtcaggaaga
 240
 agacgcccag tgaggtcacg gtgcccacga ggggtggattc ccctcgccct gaccacgcca
 300
 ggaggtggcc gaagggaaga ggggtgggca ggggctgctc tgcacctctc agcagagcgg
 360
 catccctgca ggtgtttgct ctggcgagga gaagccccag agagcagttc gggactgtgc
 420
 ggattggctt tagggagcca gcttttaaaa cgcgt
 455

<210> 3642

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3642

Met	Ala	Gln	Pro	Leu	Val	Leu	Ala	Pro	Ser	Arg	Arg	Pro	Gly	Gln	Leu
1				5				10				15			
Pro	Arg	Gly	Arg	Ala	Gly	Gly	Ala	Ala	Pro	Gly	Gly	Glu	Glu	Met	Ser
			20					25				30			
Gln	Ser	Pro	Glu	Glu	Ser	Arg	Ser	Ser	His	Ala	Ser	Arg	Asp	Leu	Ala
		35					40					45			
Pro	Leu	Glu	Arg	Arg	Ser	Gly	Arg	Gly	Ala	Arg	Asp	Ala	Arg	Ala	Leu
	50					55				60					
Thr	Ser	Trp	Ala	Pro	Val	Arg	Gly	Glu	Val	Arg	Lys	Lys	Thr	Pro	Ser
65					70					75				80	
Glu	Val	Thr	Val	Pro	Thr	Arg	Val	Asp	Ser	Pro	Arg	Pro	Asp	His	Ala
				85				90					95		
Arg	Arg	Trp	Pro	Lys	Gly	Arg	Gly	Trp	Gly	Arg	Gly	Cys	Ser	Ala	Pro
			100				105					110			
Ser	Ser	Arg	Ala	Ala	Ser	Leu	Gln	Val	Phe	Ala	Leu	Ala	Arg	Arg	Ser
		115				120					125				
Pro	Arg	Glu	Gln	Phe	Gly	Thr	Val	Arg	Ile	Gly	Phe	Arg	Glu	Pro	Ala
	130					135					140				
phe	Lys	Thr	Arg												
145															

<210> 3643

<211> 2243

<212> DNA

<213> Homo sapiens

<400> 3643

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120
ctttgcaagc aggtggccag taaagctgag gagaatctgc tcattgtgct ggggacagac
180
atgagtgtac ggagagctgc agtcatcttt gcagatacac ttactctttt gtttgaaggg
240
attgcccga ttgtggagac ccaccagcca atagtggaga cctattatgg gccagggaga
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360
gacaagttca tcaagcaag ggactaccac cagcagttcc ggcatgttca gaacaacctg
420
atgagaaatt ctacaacaga aaaaatcgaa ccaagagaac tggaccccat cctgactgag
480
gtcacctga tgaatgcccg cagtgtgcta tacttacgct tcctcaagaa gaggattagc
540
tctgattttg aggtgggaga ctccatggcc tcagaggag taaagcaaga gcaccagaag
600
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660
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720
gacacctatg agaaggcca gctgacatcc agcatgggtg atgagtctt ctacattgtt
780
aagaagtga ttggcgggc tctgtccagc tccagcattg actgtctctg tgccatgatc
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900
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960
atcatgcaca gcagcctcca gcaaggcaaa ttgacacaa aaggcatcga gagtactgac
1020
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1080
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1140
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1440
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1560
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1620
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1680

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 1740
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 2040
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 2100
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 2160
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 2220
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 2243

<210> 3644

<211> 560

<212> PRT

<213> Homo sapiens

<400> 3644

Gly	Leu	His	Glu	Gly	Leu	Arg	Lys	Phe	Ser	Glu	Tyr	Leu	Cys	Lys
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Gln	Val	Ala	Ser	Lys	Ala	Glu	Glu	Asn	Leu	Leu	Met	Val	Leu	Gly
		20					25					30		
Asp	Met	Ser	Asp	Arg	Arg	Ala	Ala	Val	Ile	Phe	Ala	Asp	Thr	Leu
		35				40					45			
Leu	Leu	Phe	Glu	Gly	Ile	Ala	Arg	Ile	Val	Glu	Thr	His	Gln	Pro
	50				55					60				
Val	Glu	Thr	Tyr	Tyr	Gly	Pro	Gly	Arg	Leu	Tyr	Thr	Leu	Ile	Lys
65				70				75					80	
Leu	Gln	Val	Glu	Cys	Asp	Arg	Gln	Val	Glu	Lys	Val	Val	Asp	Lys
			85					90					95	
Ile	Lys	Gln	Arg	Asp	Tyr	His	Gln	Gln	Phe	Arg	His	Val	Gln	Asn
		100					105					110		
Leu	Met	Arg	Asn	Ser	Thr	Thr	Glu	Lys	Ile	Glu	Pro	Arg	Glu	Leu
	115						120					125		
Pro	Ile	Leu	Thr	Glu	Val	Thr	Leu	Met	Asn	Ala	Arg	Ser	Glu	Leu
	130					135				140				
Leu	Arg	Phe	Leu	Lys	Lys	Arg	Ile	Ser	Ser	Asp	Phe	Glu	Val	Gly
145				150						155				160
Ser	Met	Ala	Ser	Glu	Glu	Val	Lys	Gln	Glu	His	Gln	Lys	Cys	Leu
			165					170					175	
Lys	Leu	Leu	Asn	Asn	Cys	Leu	Leu	Ser	Cys	Thr	Met	Gln	Glu	Leu
		180						185				190		
Gly	Leu	Tyr	Val	Thr	Met	Glu	Glu	Tyr	Phe	Met	Arg	Glu	Thr	Val
		195				200						205		
Lys	Ala	Val	Ala	Leu	Asp	Thr	Tyr	Glu	Lys	Gly	Gln	Leu	Thr	Ser

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      210              215              220
Met Val Asp Asp Val Phe Tyr Ile Val Lys Lys Cys Ile Gly Arg Ala
225              230              235              240
Leu Ser Ser Ser Ser Ile Asp Cys Leu Cys Ala Met Ile Asn Leu Ala
      245              250              255
Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val Leu Cys Asn Lys Leu
      260              265              270
Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp Ile Gln Arg Gly Val
      275              280              285
Thr Ser Ala Val Asn Ile Met His Ser Ser Leu Gln Gln Gly Lys Phe
      290              295              300
Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala Lys Met Ser Phe Leu
305              310              315              320
Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu Asn Ile Ser Thr Leu
      325              330              335
Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu Phe Ser Gln Gly Ile
      340              345              350
Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser Cys Leu Ser Asp Leu
      355              360              365
Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu Gln Glu Gly Leu Thr
      370              375              380
Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val Gln Pro Trp Ile Asn
385              390              395              400
Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu Glu Glu Phe Asn Asp
      405              410              415
Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe Ile Leu Asn Leu Glu
      420              425              430
Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser Pro Val Ile Tyr Asp
      435              440              445
Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala Val Glu Leu Glu Lys
      450              455              460
Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly Gly Leu Gln Phe Asp
465              470              475              480
Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr Thr Val Thr Thr Trp
      485              490              495
Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln Met Ala Thr Ile Leu
      500              505              510
Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr Trp Gly Pro Asn Ser
      515              520              525
Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu Val Arg Gln Val Leu
      530              535              540
Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile Lys Arg Leu Arg Leu
545              550              555              560

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<210> 3645

<211> 823

<212> DNA

<213> Homo sapiens

<400> 3645

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60
ccagggtttt gtagatggat tcttcaaaaa ctcttttgag gtattgcctg ggcttctcag
120

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tcgggttgat ttcctcatct tctatttgat gggctaactg ctctatggaa ggaagatctt
 180
 cctcctcctt ggaggctaag atttgcgta actctttcct gagatcaata aaacgatcgt
 240
 ggaacagggc caggcaccac ggctcggta agtagctata gagatctgtg atcagggttt
 300
 catcgatacc agcacacagg ttgttgagga gttgctcgtg ctggccaac aagcggtatg
 360
 agttggaggc ggggaagggc tcctagaaa ggcacgtgat ggtttccacc attttatact
 420
 tgtaatatg aattcggaag taagtcccat ttttcgcact gcgggttact agttctaaac
 480
 cataattagg ctgggccatt tgtacctcca agggagttag aatggcaggc ttggcaatat
 540
 gcagataatg gtaagacca ggaagaatgc ccccttgaat ctgggtccc ttgtacatgg
 600
 ggatgagccg gtcaagatta gctggtggct cggtcacagg ctcaagggtt ggatcaaa
 660
 gatgtagcat agctgctgcc agctgaaagc caatttcttt ggaactgaag ttgctggtgg
 720
 gccattcat ttgagtagta tctattggag aatttggtga gggagccagc agctctgatg
 780
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 823

<210> 3646

<211> 243

<212> PRT

<213> Homo sapiens

<400> 3646

Met	Asn	Gly	Pro	Thr	Ser	Asn	Phe	Ser	Ser	Lys	Glu	Ile	Gly	Phe	Gln
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Leu	Ala	Ala	Ala	Met	Leu	His	Leu	Phe	Asp	Pro	Thr	Leu	Glu	Pro	Val
			20					25					30		
Thr	Glu	Pro	Pro	Ala	Asn	Leu	Asp	Arg	Leu	Ile	Pro	Met	Tyr	Lys	Gly
		35				40					45				
Ala	Lys	Ile	Gln	Gly	Gly	Ile	Leu	Pro	Gly	Ser	Tyr	His	Tyr	Leu	His
	50					55				60					
Ile	Ala	Lys	Pro	Ala	Ile	Pro	Thr	Pro	Leu	Glu	Val	Gln	Met	Ala	Gln
	65				70				75				80		
Pro	Asn	Tyr	Gly	Leu	Glu	Leu	Val	Thr	Gly	Ser	Ala	Lys	Asn	Gly	Thr
			85					90					95		
Tyr	Phe	Arg	Ile	His	Ile	Asn	Lys	Tyr	Lys	Met	Val	Glu	Thr	Ile	Thr
			100					105					110		
Cys	Leu	Ser	Arg	Glu	Pro	Phe	Pro	Ala	Ser	Asn	Tyr	Ile	Arg	Leu	Phe
		115					120					125			
Gly	Gln	His	Glu	Gln	Leu	Leu	Asn	Asn	Leu	Cys	Ala	Arg	Tyr	Asp	Glu
		130				135				140					
Asn	Leu	Ile	Thr	Asp	Leu	Tyr	Ser	Tyr	Phe	Thr	Glu	Pro	Trp	Cys	Leu
					150				155					160	
Ala	Leu	Phe	His	Asp	Arg	Phe	Ile	Asp	Leu	Arg	Lys	Glu	Leu	Arg	Gln
				165				170						175	
Ile	Leu	Ala	Ser	Lys	Glu	Glu	Glu	Asp	Leu	Pro	Ser	Ile	Glu	Gln	Leu

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                180                185                190
Ala His Gln Ile Glu Asp Glu Glu Ile Asn Pro Thr Glu Lys Pro Arg
      195                200                205
Gln Tyr Leu Lys Arg Val Phe Glu Glu Ser Ile Tyr Lys Thr Leu Val
      210                215                220
Glu Arg Ser Thr Leu Asp Tyr Leu His Tyr Asn Arg Tyr His Leu Pro
225                230                235                240
Met Tyr Ala

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<210> 3647
 <211> 584
 <212> DNA
 <213> Homo sapiens

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<400> 3647
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120
acgaggggca ctaactcctgc cacctgcacc accattactg tggcctgcac gaacgccggc
180
tcttccacct gacggtcgcc gaacccccac cgagagccgc cccccggggc tctccgggca
240
acggctccag ccacagcggc gccccaggcc cagggtgaagg aggcctccct gggaccggg
300
aagcggggag cccacccac cggggggttc tctgcgcccg ctgtcccttg cccgaggccc
360
gcggatccca gcgggnnggc cgtggccccg gtcggggcgc aggtcttctg ggtacctgac
420
gccgctccga ccccgcggtc cccgcagacc ccacactggc gcgcggccac aacgtcatca
480
atgtcatcgt ccccgagagc cgagcccact tcttccagca gctgggctac gtgctggcca
540
cgctgctgct cttcatactg ctactgggtca ctgtcctcct ggcc
584

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<210> 3648
 <211> 63
 <212> PRT
 <213> Homo sapiens

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<400> 3648
Thr Arg Arg Ala Ser Ala Ala Pro Thr Gly Pro Phe Phe Cys Ala Thr
1      5      10      15
Ala Trp Leu Trp Ala Arg Met Pro Leu Ser Ala Val Thr Ser His Cys
      20      25      30
Val Ser Ser Arg Trp Arg Ser Pro Thr Arg Ala Pro Thr Pro Ala Thr
      35      40      45
Cys Thr Thr Ile Thr Val Ala Cys Thr Asn Ala Ala Ser Ser Thr
50      55      60

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<210> 3649
 <211> 648

<212> DNA

<213> Homo sapiens

<400> 3649

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120
tgctcattgt ttgtgtgtgt cccctttttt tttcaggttg ctattttctgc agatgtcaaa
180
gaagttctgt taactgatgg gaatgaaaag gccatcagaa atgtgcaaga catcatcaca
240
aggaatcaga aggctgtgtgt gtttaagacc cagaaaaatat caagctgcgt tttacgatgg
300
gataatgaga cagatgtctc tcaactggaa ggacattttg acattgttat gtgtgtgtgac
360
tgctgttttc tggaccagta cagagccagc cttgttgatg caataaagag attactccag
420
cccaggggga aagcgatggt atttgcccca cgccgagggga atactttaaa ccagttttgc
480
aatctagctg aaaaagctgg tttctgtatc caaagacatg aaaattatga tgaacacatt
540
tcaaacttcc actccaagtt gaaaaaggaa aaccgggaca tatatgaaga aaaccttcac
600
taccgcctc tgcttatttt gaccaaacat ggatagaaga ttaagctt
648

<210> 3650

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3650

Met	Ile	Leu	Lys	Ala	Cys	His	Ser	Cys	Phe	His	Phe	His	Thr	Asp	Lys
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His	Ile	Cys	Ser	Leu	Phe	Ala	Val	Leu	Pro	Phe	Phe	Phe	Gln	Val	Ala
			20					25					30		
Ile	Ser	Ala	Asp	Val	Lys	Glu	Val	Leu	Leu	Thr	Asp	Gly	Asn	Glu	Lys
	35					40						45			
Ala	Ile	Arg	Asn	Val	Gln	Asp	Ile	Ile	Thr	Arg	Asn	Gln	Lys	Ala	Gly
	50				55					60					
Val	Phe	Lys	Thr	Gln	Lys	Ile	Ser	Ser	Cys	Val	Leu	Arg	Trp	Asp	Asn
				70						75				80	
Glu	Thr	Asp	Val	Ser	Gln	Leu	Glu	Gly	His	Phe	Asp	Ile	Val	Met	Cys
			85					90						95	
Ala	Asp	Cys	Leu	Phe	Leu	Asp	Gln	Tyr	Arg	Ala	Ser	Leu	Val	Asp	Ala
			100					105					110		
Ile	Lys	Arg	Leu	Leu	Gln	Pro	Arg	Gly	Lys	Ala	Met	Val	Phe	Ala	Pro
	115				120					125					
Arg	Arg	Gly	Asn	Thr	Leu	Asn	Gln	Phe	Cys	Asn	Leu	Ala	Glu	Lys	Ala
	130				135					140					
Gly	Phe	Cys	Ile	Gln	Arg	His	Glu	Asn	Tyr	Asp	Glu	His	Ile	Ser	Asn
	145			150					155					160	
Phe	His	Ser	Lys	Leu	Lys	Lys	Glu	Asn	Pro	Asp	Ile	Tyr	Glu	Glu	Asn

	165		170		175
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	180		185		

<210> 3651
 <211> 2469
 <212> DNA
 <213> Homo sapiens

<400> 3651
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 120
 tttgaagggg cactgtggt catcctgaac atgcccaagg gaacagagtt tgggattgac
 180
 tataactcct gggaggtcgg gcccgaagtc cggggcgtga agatgatccc tccaggcctc
 240
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 300
 ggtttctctc ttagcctgca ccagcggggg ctgacagtgc tgcgtggag cacactcagg
 360
 gaagaggtg acctgtcccc agccccagag tctgaggtgg aggccatgag ggccaacctc
 420
 caggagctgg accagttcct ggggccttac ccatatgcc cctgaagaa gtggatctca
 480
 ctaccaact tcatcagcga agccacagtg gagaagtac agcccagaaa tcgacagatc
 540
 tgtgcctttt ccgatgtgct acctgtgctc tccatgaagc acaccaagga ccgcgtgggg
 600
 cagaatctac ccgcgtgtgg cattgagtgc aaaagctacc aagagggcct ggcccggcta
 660
 ccagagatga agcccagagc cgggacagag atccgcttct cagagctgcc caccgagatg
 720
 ttcccagagg gtgccacgcc agctgagata accaagcaca gcatggacct gagctatgcc
 780
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 840
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 900
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 960
 atcaacctca tgtccatcct gtaccaccag cttgggtgaga tccccgtga cttctctgta
 1020
 gacattgtct cccaagacaa cttcctcacc agcaccttac aggtttttctt ttctctctgc
 1080
 tgcagcattg ccgtggatgc caccctgaga aagaaagctg aaaagttcca agctcacctg
 1140
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 1200
 gagctccctg agggcatcga gatgggctaa ctgggggagc gctctcagct gcgagggggc
 1260
 ccttcccaca gggctgcagt cctggcctct ccatttactt ctccccatcc tgggacctgc
 1320

cagggcagca atctctccag gtcctgcaaa gatggagcca gaattccctt tttcactgat
 1380
 aaatatatatt cttcattgcc aaagaggctg tacccatcct gaaggcacat ttgtgggttc
 1440
 cccatcagcc aggccctgggt gctaacctgg ctgaatttca cacaggtctt tacacacaca
 1500
 cgctcctagg agacatctgc ctacacggca accatatttc ctctgaatga gaagggaattg
 1560
 aaccaaaagt ccaagaaaga actgattgtt tgttccatag gagcttagga aacaagaaac
 1620
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 1680
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 1860
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 1980
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 2040
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 2100
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 2160
 aatgagctcc tggttcctcg ggagtccttc gtgctgtgtg gcaggggttc tctctagaca
 2220
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 2280
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 2340
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 2460
 aaaaaaaaaa
 2469

<210> 3652

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3652

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Glu	Gly	Ala	Thr	Val	Val	Ile	Leu	Asn	Met	Pro	Lys	Gly	Thr	Glu	Phe
			20					25					30		
Gly	Ile	Asp	Tyr	Asn	Ser	Trp	Glu	Val	Gly	Pro	Lys	Phe	Arg	Gly	Val
		35				40					45				
Lys	Met	Ile	Pro	Pro	Gly	Ile	His	Phe	Leu	His	Tyr	Ser	Ser	Val	Asp

50					55				60					
Lys	Ala	Asn	Pro	Lys	Glu	Val	Gly	Pro	Arg	Met	Gly	Phe	Phe	Leu
65					70					75				80
Leu	His	Gln	Arg	Gly	Leu	Thr	Val	Leu	Arg	Trp	Ser	Thr	Leu	Arg
				85					90					95
Glu	Val	Asp	Leu	Ser	Pro	Ala	Pro	Glu	Ser	Glu	Val	Glu	Ala	Met
			100					105					110	Arg
Ala	Asn	Leu	Gln	Glu	Leu	Asp	Gln	Phe	Leu	Gly	Pro	Tyr	Pro	Tyr
		115					120					125		Ala
Thr	Leu	Lys	Lys	Trp	Ile	Ser	Leu	Thr	Asn	Phe	Ile	Ser	Glu	Ala
	130					135						140		Thr
Val	Glu	Lys	Leu	Gln	Pro	Glu	Asn	Arg	Gln	Ile	Cys	Ala	Phe	Ser
	145			150					155					160
Val	Leu	Pro	Val	Leu	Ser	Met	Lys	His	Thr	Lys	Asp	Arg	Val	Gly
			165						170					175
Asn	Leu	Pro	Arg	Cys	Gly	Ile	Glu	Cys	Lys	Ser	Tyr	Gln	Glu	Gly
	180						185					190		Leu
Ala	Arg	Leu	Pro	Glu	Met	Lys	Pro	Arg	Ala	Gly	Thr	Glu	Ile	Arg
	195					200						205		Phe
Ser	Glu	Leu	Pro	Thr	Gln	Met	Phe	Pro	Glu	Gly	Ala	Thr	Pro	Ala
	210				215					220				Glu
Ile	Thr	Lys	His	Ser	Met	Asp	Leu	Ser	Tyr	Ala	Leu	Glu	Thr	Val
	225			230					235					240
Ile	Lys	Gln	Phe	Pro	Ser	Ser	Pro	Gln	Asp	Val	Leu	Gly	Glu	Leu
			245					250					255	Gln
Phe	Ala	Phe	Val	Cys	Phe	Leu	Leu	Gly	Asn	Val	Tyr	Glu	Ala	Phe
		260					265					270		Glu
His	Trp	Lys	Arg	Leu	Leu	His	Leu	Leu	Cys	Arg	Ser	Glu	Ala	Ala
	275					280						285		Met
Met	Lys	His	His	Thr	Leu	Tyr	Ile	Asn	Leu	Met	Ser	Ile	Leu	Tyr
	290				295					300				His
Gln	Leu	Gly	Glu	Ile	Pro	Ala	Asp	Phe	Phe	Val	Asp	Ile	Val	Ser
	305			310					315					320
Asp	Asn	Phe	Leu	Thr	Ser	Thr	Leu	Gln	Val	Phe	Phe	Ser	Ser	Ala
			325					330					335	Cys
Ser	Ile	Ala	Val	Asp	Ala	Thr	Leu	Arg	Lys	Lys	Ala	Glu	Lys	Phe
		340					345					350		Gln
Ala	His	Leu	Thr	Lys	Lys	Phe	Arg	Trp	Asp	Phe	Ala	Ala	Glu	Pro
	355					360					365			Glu
Asp	Cys	Ala	Pro	Val	Val	Val	Glu	Leu	Pro	Glu	Gly	Ile	Glu	Met
	370				375					380				Gly

<210> 3653

<211> 283

<212> DNA

<213> Homo sapiens

<400> 3653

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120

tcttctccac tggagatgct ccttcagctc agcaggacgc tagctcgaa ctcagactgc

180

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<210> 3654
 <211> 88
 <212> PRT
 <213> Homo sapiens

<400> 3654
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 Gln Ala Val Phe Ser Thr Gly Asp Ala Pro Ser Ala Gln Gln Asp Ala
 35 40 45
 Ser Ser Glu Leu Arg Leu His Ile Phe Ala Asp Trp Glu Glu Gly Arg
 50 55 60
 Arg Arg Gly Arg Ile Val Ser Gly Ala Ala Phe Trp Gly Cys Leu Pro
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 Val Gly Ile Phe Ser Thr Pro Arg
 85

<210> 3655
 <211> 3477
 <212> DNA
 <213> Homo sapiens

<400> 3655
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 420
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 480
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 600
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 660
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780
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2280
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2340

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 2460
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 3240
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 3477

<210> 3656

<211> 429

<212> PRT

<213> Homo sapiens

<400> 3656

Met Ala Ser Leu Lys Glu Leu Ala Pro Thr Gly Arg Ile Met Asn Ser
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 Cys Met Ala Ser Leu Phe Pro Ala Trp Glu Pro Pro Leu Ile Thr Leu
 20 25 30
 Lys Ala Gly Thr Gly Ser Met Arg Ser Gly Phe Pro Ala Lys Ser Ala
 35 40 45
 Met Trp Arg Tyr Arg Gly Thr Pro Phe Ser Lys Ala Val Glu His Ile
 50 55 60
 Asn Lys Thr Ile Ala Pro Ala Leu Val Ser Lys Lys Leu Asn Val Thr

65	70								75								80							
Glu	Gln	Glu	Lys	Ile	Asp	Lys	Leu	Met	Ile	Glu	Met	Asp	Gly	Thr	Glu									
Asn	Lys	Ser	Lys	Phe	Gly	Ala	Asn	Ala	Ile	Leu	Gly	Val	Ser	Leu	Ala									
Val	Cys	Lys	Ala	Gly	Ala	Val	Glu	Lys	Gly	Val	Pro	Leu	Tyr	Arg	His									
Ile	Ala	Asp	Leu	Ala	Gly	Asn	Ser	Glu	Val	Ile	Leu	Pro	Val	Pro	Ala									
Phe	Asn	Val	Ile	Asn	Gly	Gly	Ser	His	Ala	Gly	Asn	Lys	Leu	Ala	Met									
Gln	Glu	Phe	Met	Ile	Leu	Pro	Val	Gly	Ala	Ala	Asn	Phe	Arg	Glu	Ala									
Met	Arg	Ile	Gly	Ala	Glu	Val	Tyr	His	Asn	Leu	Lys	Asn	Val	Ile	Lys									
Glu	Lys	Tyr	Gly	Lys	Asp	Ala	Thr	Asn	Val	Gly	Asp	Glu	Gly	Gly	Phe									
Ala	Pro	Asn	Ile	Leu	Glu	Asn	Lys	Glu	Gly	Leu	Glu	Leu	Leu	Lys	Thr									
Ala	Ile	Gly	Lys	Ala	Gly	Tyr	Thr	Asp	Lys	Val	Val	Ile	Gly	Met	Asp									
Val	Ala	Ala	Ser	Glu	Phe	Phe	Arg	Ser	Gly	Lys	Tyr	Asp	Leu	Asp	Phe									
Lys	Ser	Pro	Asp	Asp	Pro	Ser	Arg	Tyr	Ile	Ser	Pro	Asp	Gln	Leu	Ala									
Asp	Leu	Tyr	Lys	Ser	Phe	Ile	Lys	Asp	Tyr	Pro	Val	Val	Ser	Ile	Glu									
Asp	Pro	Phe	Asp	Gln	Asp	Asp	Trp	Gly	Ala	Trp	Gln	Lys	Phe	Thr	Ala									
Ser	Ala	Gly	Ile	Gln	Val	Val	Gly	Asp	Asp	Leu	Thr	Val	Thr	Asn	Pro									
Lys	Arg	Ile	Ala	Gln	Ala	Val	Asn	Glu	Lys	Ser	Cys	Asn	Cys	Leu	Leu									
Leu	Lys	Val	Asn	Gln	Ile	Gly	Ser	Val	Thr	Glu	Ser	Leu	Gln	Ala	Cys									
Lys	Leu	Ala	Gln	Ala	Asn	Gly	Trp	Gly	Val	Met	Val	Ser	His	Arg	Ser									
Gly	Glu	Thr	Glu	Asp	Thr	Phe	Ile	Ala	Asp	Leu	Val	Val	Gly	Leu	Cys									
Thr	Gly	Gln	Ile	Lys	Thr	Gly	Ala	Pro	Cys	Arg	Ser	Glu	Arg	Leu	Ala									
Lys	Tyr	Asn	Gln	Leu	Leu	Arg	Ile	Glu	Glu	Glu	Leu	Gly	Ser	Lys	Ala									
Lys	Phe	Ala	Gly	Arg	Asn	Phe	Arg	Asn	Pro	Leu	Ala	Lys												

<210> 3657

<211> 337

<212> DNA

<213> Homo sapiens

<400> 3657

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 gtgcagatgt gtcacatgtt cattttcggc tcaaggcgta cactgacagg tgtgttacgt
 180
 gttcattttc ggctcaaggc ttacacgtgc aggtgtgcca catgttcatt ttcggctcaa
 240
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 337

<210> 3658

<211> 99

<212> PRT

<213> Homo sapiens

<400> 3658

Met	Cys	His	Met	Phe	Ile	Phe	Ser	Ser	Arg	Arg	Thr	Arg	Ala	Gly	Val
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Leu	Arg	Val	His	Phe	Arg	Leu	Lys	Ala	Tyr	Thr	Cys	Arg	Cys	Val	Thr
		20					25					30			
Cys	Ser	Phe	Ser	Ala	Gln	Gly	Val	His	Val	Gln	Val	Cys	Tyr	Val	Phe
		35				40					45				
Ile	Phe	Gly	Ser	Arg	Leu	Thr	Arg	Ala	Gly	Val	Pro	His	Val	His	Phe
	50					55				60					
Arg	Leu	Lys	Ala	Tyr	Met	Cys	Arg	Cys	Val	Thr	Cys	Ser	Leu	Ser	Ala
65				70					75					80	
Gln	Arg	Val	His	Val	Gln	Val	Cys	His	Met	Phe	Ile	Phe	Gly	Ser	Arg
			85						90					95	

Arg Thr Arg

<210> 3659

<211> 1025

<212> DNA

<213> Homo sapiens

<400> 3659

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 120
 gttgaaaaata agacggccca gatattaaat cttcagcaac atttatctgc ccttgaaaaa
 180
 gatattaaac acaatgagga acttcttaaa aggtgccaac tacattataa agaactaaag
 240
 atgaaaaataa gaaaaatat ttctgaaatt cgggaacttg agaacataga agaaccaccg
 300
 tctgtagata ttgcaacttt ggaagatgaa gctcaggaaa ataaaagcaa aatgaaaaatg
 360
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 420
 gaagcagaaa ataagtatga tgcaattaaa ttcaaaatta atcaactatc ggagctagca
 480

gaccacctta aggatgaatt aaaccttgct gattctgaag tggataacca aaaacgaggg
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 600
 gaactggata tgaagagaa agaactagag gagaaaatgt cacaagcaag acaaatctgc
 660
 ccagagcgta tagaagtaga aaaatctgca tcaattctgg acaagaaaaa taatcgatta
 720
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 780
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 840
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 900
 aggtgtttga ctttacgatg caaattatac ttgacaact tactatctca gcgggcctat
 960
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 1020
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 1025

<210> 3660

<211> 341

<212> PRT

<213> Homo sapiens

<400> 3660

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 20 25 30
 Glu Ile Ser Asp Leu Glu Asn Glu Val Glu Asn Lys Thr Ala Gln Ile
 35 40 45
 Leu Asn Leu Gln Gln His Leu Ser Ala Leu Glu Lys Asp Ile Lys His
 50 55 60
 Asn Glu Glu Leu Leu Lys Arg Cys Gln Leu His Tyr Lys Glu Leu Lys
 65 70 75 80
 Met Lys Ile Arg Lys Asn Ile Ser Glu Ile Arg Glu Leu Glu Asn Ile
 85 90 95
 Glu Glu His Gln Ser Val Asp Ile Ala Thr Leu Glu Asp Glu Ala Gln
 100 105 110
 Glu Asn Lys Ser Lys Met Lys Met Val Glu Glu His Met Glu Gln Gln
 115 120 125
 Lys Glu Asn Met Glu His Leu Lys Ser Leu Lys Ile Glu Ala Glu Asn
 130 135 140
 Lys Tyr Asp Ala Ile Lys Phe Lys Ile Asn Gln Leu Ser Glu Leu Ala
 145 150 155 160
 Asp Pro Leu Lys Asp Glu Leu Asn Leu Ala Asp Ser Glu Val Asp Asn
 165 170 175
 Gln Lys Arg Gly Lys Arg His Tyr Glu Lys Lys Gln Lys Glu His Leu
 180 185 190
 Asp Thr Leu Asn Lys Lys Lys Arg Glu Leu Asp Met Lys Glu Lys Glu
 195 200 205
 Leu Glu Glu Lys Met Ser Gln Ala Arg Gln Ile Cys Pro Glu Arg Ile

210	215	220
Glu Val Glu Lys Ser Ala Ser Ile Leu Asp Lys Glu Ile Asn Arg Leu		
225	230	235
Arg Gln Lys Ile Gln Ala Glu His Ala Ser His Gly Asp Arg Glu Glu		240
	245	250
Ile Met Arg Gln Tyr Gln Glu Ala Arg Glu Thr Tyr Leu Asp Leu Asp		255
	260	265
Ser Lys Val Arg Thr Leu Lys Lys Phe Ile Lys Leu Leu Gly Glu Ile		270
	275	280
Met Glu His Arg Phe Lys Thr Tyr Gln Gln Phe Arg Arg Cys Leu Thr		285
	290	295
Leu Arg Cys Lys Leu Tyr Phe Asp Asn Leu Leu Ser Gln Arg Ala Tyr		300
	305	310
Cys Gly Lys Met Asn Phe Asp His Lys Asn Glu Thr Leu Ser Ile Ser		315
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	325	330
Val Gln Pro Gly Glu		335
	340	

<210> 3661

<211> 1117

<212> DNA

<213> Homo sapiens

<400> 3661

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 120
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 180
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 300
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 420
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 480
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 900

tcattcattt gactgttttc tcgtgcattt tcataggaag aatttcggta gctcttataa
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 1020
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<210> 3662

<211> 371

<212> PRT

<213> Homo sapiens

<400> 3662

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			20				25						30		
Pro	Ser	Val	Tyr	Pro	Tyr	Lys	Leu	Tyr	Arg	Leu	Leu	Pro	Met	Lys	Cys
		35					40					45			
Lys	Arg	Ala	Pro	Tyr	Lys	Ser	Tyr	Arg	Asn	Ser	Ser	Tyr	Glu	Asn	Ala
	50					55					60				
Arg	Glu	Asn	Ser	Gln	Met	Asn	Glu	Ser	Ala	Pro	Gly	Thr	Tyr	Val	Val
65					70					75				80	
Gln	Asn	Pro	His	Ser	Ser	Glu	Leu	Pro	Thr	Leu	Asn	Phe	Gln	Asp	Thr
			85						90					95	
Val	Asn	Thr	Leu	Thr	Asn	Ser	Pro	Ala	Ile	Pro	Leu	Glu	Thr	Ser	Ala
			100					105					110		
Cys	Gln	Asp	Ile	Pro	Thr	Ser	Ala	Asn	Val	Gln	Asn	Ala	Glu	Gly	Thr
		115				120						125			
Lys	Trp	Gly	Glu	Glu	Ala	Leu	Lys	Met	Asp	Leu	Asp	Asn	Asn	Phe	Tyr
		130				135					140				
Ser	Thr	Glu	Val	Ser	Val	Ser	Ser	Thr	Glu	Asn	Ala	Val	Ser	Ser	Asp
145					150					155					160
Leu	Arg	Ala	Gly	Asp	Val	Pro	Val	Leu	Ser	Leu	Ser	Asn	Ser	Ser	Glu
				165					170					175	
Asn	Ala	Ala	Ser	Val	Ile	Ser	Tyr	Ser	Gly	Ser	Ala	Pro	Ser	Val	Ile
			180					185					190		
Val	His	Ser	Ser	Gln	Phe	Ser	Ser	Val	Ile	Met	His	Ser	Asn	Ala	Ile
			195				200					205			
Ala	Ala	Met	Thr	Ser	Ser	Asn	His	Arg	Ala	Phe	Ser	Asp	Pro	Ala	Val
		210				215					220				
Ser	Gln	Ser	Leu	Lys	Asp	Asp	Ser	Lys	Pro	Glu	Pro	Asp	Lys	Val	Gly
225					230					235				240	
Arg	Phe	Ala	Ser	Arg	Pro	Lys	Ser	Ile	Lys	Glu	Lys	Lys	Lys	Thr	Thr
				245						250				255	
Ser	His	Thr	Arg	Gly	Glu	Ile	Pro	Glu	Glu	Ser	Asn	Tyr	Val	Ala	Asp
			260					265					270		
Pro	Gly	Gly	Ser	Leu	Ser	Lys	Thr	Thr	Asn	Ile	Ala	Glu	Glu	Thr	Ser
		275					280						285		
Lys	Ile	Glu	Thr	Tyr	Ile	Ala	Lys	Pro	Ala	Leu	Pro	Gly	Thr	Ser	Thr
		290				295					300				
Asn	Ser	Asn	Val	Ala	Pro	Leu	Cys	Gln	Ile	Thr	Val	Lys	Ile	Gly	Asn

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305              310              315              320
Glu Ala Ile Val Lys Arg His Ile Leu Gly Ser Lys Leu Phe Tyr Lys
              325              330              335
Arg Gly Arg Arg Pro Lys Tyr Gln Met Gln Glu Glu Leu Leu Pro Gln
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Gly Asn Asp Pro Glu Pro Ser Gly Asp Ser Pro Leu Gly Leu Cys Gln
              355              360              365
Ser Glu Cys
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<210> 3663
<211> 481
<212> DNA
<213> Homo sapiens

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<400> 3663
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120
tttgaacat gtccctctcg cactttctta ccagcccttt acaaaatttt tcttgatgaa
180
agtgctccag acaatgtatt agaggtgaca gccctgacca taacatacta cctggatgta
240
tctgcggaat gtacccgaag gattgttggg gtagatggag ctataaaagc actttgtaat
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360
aaggtaagta ttacttattg gctcattact tattttctc agacctctca gggatgagta
420
ttggctcatt taaacatcac ttagagactg aaaaatgtat ttactaaaaa aaaagtcgac
480
g
481

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<210> 3664
<211> 138
<212> PRT
<213> Homo sapiens

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<400> 3664
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20     25     30
Met Ser Asp Asn Val Asp Arg Cys Phe Glu Thr Cys Pro Pro Arg Thr
35     40     45
Phe Leu Pro Ala Leu Tyr Lys Ile Phe Leu Asp Glu Ser Ala Pro Asp
50     55     60
Asn Val Leu Glu Val Thr Ala Arg Ala Ile Thr Tyr Tyr Leu Asp Val
65     70     75     80
Ser Ala Glu Cys Thr Arg Arg Ile Val Gly Val Asp Gly Ala Ile Lys
85     90     95
Ala Leu Cys Asn Arg Leu Val Val Val Glu Leu Asn Asn Arg Thr Ser

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	100		105		110										
Arg	Asp	Leu	Ala	Glu	Gln	Cys	Val	Lys	Val	Ser	Ile	Thr	Tyr	Trp	Leu
	115						120						125		
Ile	Thr	Tyr	Phe	Ser	Gln	Thr	Ser	Gln	Gly						
	130						135								

<210> 3665

<211> 6633

<212> DNA

<213> Homo sapiens

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1345	1350	1355
Leu Phe Val Ala Val Lys Arg Leu Ile Leu Cys Tyr Glu Ile Gln Arg		1360
	1365	1370
Thr Lys Pro Phe His Arg Lys Phe Asn Glu Ile Val Ala Pro Gly Ser		1375
	1380	1385
Val Gln Cys Leu Ala Val Leu Arg Asp Arg Leu Cys Val Gly Tyr Pro		1390
	1395	1400
Ser Gly Phe Cys Leu Leu Ser Ile Gln Gly Asp Gly Gln Pro Leu Asn		1405
	1410	1415
Leu Val Asn Pro Asn Asp Pro Ser Leu Ala Phe Leu Ser Gln Gln Ser		1420
1425	1430	1435
Phe Asp Ala Leu Cys Ala Val Glu Leu Glu Ser Glu Glu Tyr Leu Leu		1440
	1445	1450
Cys Phe Ser His Met Gly Leu Tyr Val Asp Pro Gln Gly Arg Arg Ala		1455
	1460	1465
Arg Ala Gln Glu Leu Met Trp Pro Ala Ala Pro Val Ala Cys Ser Cys		1470
	1475	1480
Ser Pro Thr His Val Thr Val Tyr Ser Glu Tyr Gly Val Asp Val Phe		1485
	1490	1495
Asp Val Arg Thr Met Glu Trp Val Gln Thr Ile Gly Leu Arg Arg Ile		1500
1505	1510	1515
Arg Pro Leu Asn Ser Glu Gly Thr Leu Asn Leu Leu Asn Cys Glu Pro		1520

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1525          1530          1535
Pro Arg Leu Ile Tyr Phe Lys Ser Lys Phe Ser Gly Ala Val Leu Asn
1540          1545          1550
Val Pro Asp Thr Ser Asp Asn Ser Lys Lys Gln Met Leu Arg Thr Arg
1555          1560          1565
Ser Lys Arg Arg Phe Val Phe Lys Val Pro Glu Glu Arg Leu Gln
1570          1575          1580
Gln Arg Arg Glu Met Leu Arg Asp Pro Glu Leu Arg Ser Lys Met Ile
1585          1590          1595
Ser Asn Pro Thr Asn Phe Asn His Val Ala His Met Gly Pro Gly Asp
1600          1605          1610
Gly Met Gln Val Leu Met Asp Leu Pro Leu Ser Ala Val Pro Pro Ser
1620          1625          1630
Gln Glu Glu Arg Pro Gly Pro Ala Pro Thr Asn Leu Ala Arg Gln Pro
1635          1640          1645
Pro Ser Arg Asn Lys Pro Tyr Ile Ser Trp Pro Ser Ser Gly Gly Ser
1650          1655          1660
Glu Pro Ser Val Thr Val Pro Leu Arg Ser Met Ser Asp Pro Asp Gln
1665          1670          1675
Asp Phe Asp Lys Glu Pro Asp Ser Asp Ser Thr Lys His Ser Thr Pro
1680          1685          1690
Ser Asn Ser Ser Asn Pro Ser Gly Pro Pro Ser Pro Asn Ser Pro His
1700          1705          1710
Arg Ser Gln Leu Pro Leu Glu Gly Leu Glu Gln Pro Ala Cys Asp Thr
1715          1720          1725

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<210> 3667

<211> 505

<212> DNA

<213> Homo sapiens

<400> 3667

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tgtacattaa tctaaatacc tggatttaca ttgatatttt aatatttgta aatttcattgt
60
taattcccta tgtaacaag tttataagt catctgtaac agtacaatta agtccatata
120
tgattgtatt tactctttct tccctactca tagtatgcgt tccattttga ggaatcacag
180
atatgaaga gatgccagaa cactagaaga tgaagaagag atgtggttta acacagatga
240
agatgacatg gaagatggag aagctgtagt gtctccatct gacaaaacta aaaatgatga
300
tgatattatg gatccaataa gtaaatcat ggaaaggaag aaattaaaag aaagtggag
360
aaaggaagtg cttctgaaaa caaacctttc tggacggcag agcccaagtt tcaagctttc
420
cctgtccagt ggaacgaaga ctaacctcac cagccagtca tctacaaca atctgcctgg
480
ttctccggga tcacctggat ccca
505

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<210> 3668

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3668

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Met Arg Ser Ile Leu Arg Asn His Arg Tyr Arg Arg Asp Ala Arg Thr
 1           5           10           15
Leu Glu Asp Glu Glu Glu Met Trp Phe Asn Thr Asp Glu Asp Asp Met
           20           25           30
Glu Asp Gly Glu Ala Val Val Ser Pro Ser Asp Lys Thr Lys Asn Asp
           35           40           45
Asp Asp Ile Met Asp Pro Ile Ser Lys Phe Met Glu Arg Lys Lys Leu
 50           55           60
Lys Glu Ser Glu Glu Lys Glu Val Leu Leu Lys Thr Asn Leu Ser Gly
 65           70           75           80
Arg Gln Ser Pro Ser Phe Lys Leu Ser Leu Ser Ser Gly Thr Lys Thr
           85           90           95
Asn Leu Thr Ser Gln Ser Ser Thr Thr Asn Leu Pro Gly Ser Pro Gly
           100          105          110
Ser Pro Gly Ser Pro
           115

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<210> 3669

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3669

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cttgactccc agcattctca tctcaccttg ccatactata agatgtctgg tttgtctatg
60
gctgagggttc tggcccgcac ggactggaca gtagaggatg gattacagaa atacgagaga
120
ggattaatct ttacatttaa tcattcactt tatgaaaacc tggatgaaga attaaatgaa
180
gaattagcag caaaagtggt tcagatgttt tatgtggctg agccaaagca agtgcccat
240
attctctgta gtcctcttat gaagaatatt aatcctttaa ctgccatgag ctatctaagg
300
aagatggata cttctgggtt ttcattccat ttagtgacac tgagcaaggc agcagtggca
360
ctgaaaatgg gagatcttga cgtgtacaga aatgaaatga aaagccatcc agagatgaag
420
ttggtgtgtg gttctatttt ggaaccacgc ctggtgattc aacacaggaa gggacagatt
480
gttccaactg agcttgcgac tcacttgaag gagactcagc caggattgct tgtggcttca
540
gtcctgggat tgcagaagaa cagcaaaatt gggattgaag aagcagattc tttctttaag
600
gtgcttttgt gtaaggatga agataccatc cctcagctct tgatagactt ttgggaagct
660
cagctagtgg catgtctccc agatgtggta cttcaggaac tctttttcaa actcacatca
720
cagttacatct ggagattgtc taaggaggag cctcctgaca ccacaccatt gcgaacatcg
780
gaggatctga taaatgcctg tagtcattat ggcttaattt atccatgggt tcacgtcgta
840

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atatcatctg attcttttagc tgataaaaaat tatacagaag atcttttcaaa attacagtct
 900
 cttatatgtg gtccttcatt tgacatagct tccattattc cgttcttgga gccactttca
 960
 gaagacacta ttgccggcct cagtgtccat gttctgtgtc gtacacgctt gaaagagtat
 1020
 gaacagtgtca tagacatact gtttagagaga tgcccggagg cagtcattcc atatgtcta
 1080
 catgaactga aagaagagaa ccggactctg tgggtgaaaa aactgttgcc tgaactttgt
 1140
 cagagaataa aatgtgggtg agagaagtat caactctacc tgtcatcatt aaaagcttaa
 1200
 ttttcacggg aactgtggaa gctagc
 1226

<210> 3670

<211> 385

<212> PRT

<213> Homo sapiens

<400> 3670

Met	Ser	Gly	Leu	Ser	Met	Ala	Glu	Val	Leu	Ala	Arg	Thr	Asp	Trp	Thr
1			5					10					15		
Val	Glu	Asp	Gly	Leu	Gln	Lys	Tyr	Glu	Arg	Gly	Leu	Ile	Phe	Tyr	Ile
		20						25				30			
Asn	His	Ser	Leu	Tyr	Glu	Asn	Leu	Asp	Glu	Glu	Leu	Asn	Glu	Glu	Leu
		35				40					45				
Ala	Ala	Lys	Val	Val	Gln	Met	Phe	Tyr	Val	Ala	Glu	Pro	Lys	Gln	Val
	50					55				60					
Pro	His	Ile	Leu	Cys	Ser	Pro	Ser	Met	Lys	Asn	Ile	Asn	Pro	Leu	Thr
65				70				75					80		
Ala	Met	Ser	Tyr	Leu	Arg	Lys	Met	Asp	Thr	Ser	Gly	Phe	Ser	Ser	Ile
			85					90					95		
Leu	Val	Thr	Leu	Ser	Lys	Ala	Ala	Val	Ala	Leu	Lys	Met	Gly	Asp	Leu
		100						105					110		
Asp	Val	Tyr	Arg	Asn	Glu	Met	Lys	Ser	His	Pro	Glu	Met	Lys	Leu	Val
		115				120						125			
Cys	Gly	Phe	Ile	Leu	Glu	Pro	Arg	Leu	Leu	Ile	Gln	His	Arg	Lys	Gly
	130					135				140					
Gln	Ile	Val	Pro	Thr	Glu	Leu	Ala	Thr	His	Leu	Lys	Glu	Thr	Gln	Pro
145				150						155				160	
Gly	Leu	Leu	Val	Ala	Ser	Val	Leu	Gly	Leu	Gln	Lys	Asn	Ser	Lys	Ile
			165					170						175	
Gly	Ile	Glu	Glu	Ala	Asp	Ser	Phe	Phe	Lys	Val	Leu	Cys	Gly	Lys	Asp
		180						185					190		
Glu	Asp	Thr	Ile	Pro	Gln	Leu	Leu	Ile	Asp	Phe	Trp	Glu	Ala	Gln	Leu
		195					200					205			
Val	Ala	Cys	Leu	Pro	Asp	Val	Val	Leu	Gln	Glu	Leu	Phe	Phe	Lys	Leu
	210					215					220				
Thr	Ser	Gln	Tyr	Ile	Trp	Arg	Leu	Ser	Lys	Arg	Gln	Pro	Pro	Asp	Thr
225				230						235				240	
Thr	Pro	Leu	Arg	Thr	Ser	Glu	Asp	Leu	Ile	Asn	Ala	Cys	Ser	His	Tyr
			245					250						255	
Gly	Leu	Ile	Tyr	Pro	Trp	Val	His	Val	Val	Ile	Ser	Ser	Asp	Ser	Leu

	260		265		270
Ala	Asp Lys Asn Tyr Thr Glu Asp Leu Ser Lys Leu Gln Ser Leu Ile				
	275		280		285
Cys	Gly Pro Ser Phe Asp Ile Ala Ser Ile Ile Pro Phe Leu Glu Pro				
	290		295		300
Leu	Ser Glu Asp Thr Ile Ala Gly Leu Ser Val His Val Leu Cys Arg				
	305		310		315
Thr	Arg Leu Lys Glu Tyr Glu Gln Cys Ile Asp Ile Leu Leu Glu Arg				
		325		330	335
Cys	Pro Glu Ala Val Ile Pro Tyr Ala Asn His Glu Leu Lys Glu Glu				
		340		345	350
Asn	Arg Thr Leu Trp Trp Lys Lys Leu Leu Pro Glu Leu Cys Gln Arg				
		355		360	365
Ile	Lys Cys Gly Gly Glu Lys Tyr Gln Leu Tyr Leu Ser Ser Leu Lys				
	370		375		380

Ala
385

<210> 3671

<211> 828

<212> DNA

<213> Homo sapiens

<400> 3671

nntacagcta agattcattt catacgtttg atgcttagct gaaaaattac aataaattct
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ccaatgaaat tatgtatctt tatttaatga aaatgcctgc tgcgtaccaa ggtatgtact
120
agggcatctg gggtaagtaa aaacaaacac atagagcctg cctggagaag ctcatggctt
180
gatggaaaga taagcaagaa gagttaattt ctaatacata tgataaaaaa gtcagagagc
240
agtttctgaa aaacatgttt ttgagttgag tcttgaaaga caaggagatg ttagtaaaagc
300
agagaagggg gaattcattc tagaaagatc agacaatgtg tgggaagggc agagtctgaa
360
aagagcatgc cccatttgga gaagcatcaa gaagcccacg cgttagaagc accggcccca
420
tgagacaaa acacagctag agagattgac taggccatgt cggaatgtcc tcttatttta
480
tacatacata agcatataga tacatatagc caaagttacc tttttaatga tcttttttac
540
ccagtgtatt ctggaggctg aatgggcaca tatgaacatc tccgagaggt tgtgtttggc
600
aaaagtgaag atgagcatta tcccctttgg aaatcagtca ttggagggat gatggctggt
660
gttatttgcc agtttttagc caatccaact gacctagtga aggttcagat gcaaatggaa
720
ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca tgcatttgca
780
aaaatcttag ctgaaggagg aatacgaggg ctttgggcag gctgggta
828

<210> 3672

<211> 124

<212> PRT

<213> Homo sapiens

<400> 3672

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Met Ser Glu Cys Pro Leu Ile Leu Tyr Ile His Lys His Ile Asp Thr
 1             5             10             15
Tyr Ser Gln Ser Tyr Leu Phe Asn Asp Leu Phe Tyr Pro Val Tyr Ser
                20             25             30
Gly Gly Arg Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe Gly
 35             40             45
Lys Ser Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly
 50             55             60
Met Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu
 65             70             75             80
Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly Lys
 85             90             95
Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile Leu Ala
100             105             110
Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val
115             120

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<210> 3673

<211> 1052

<212> DNA

<213> Homo sapiens

<400> 3673

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nagactctcaa aatctggact tgaaaagaat tccttgatct atgaactttt ctctgttatg
 60
gttcattctg ggagcgctgc tgggtggcat tattatgcat gtataaagtc attcagtgtg
120
gagcagtggt acagcttcaa tgatcaacat gtcagcagga taacacaaga ggacattaag
180
aaaacacatg gtggatcttc aggaagcaga ggatattatt ctatgtcttt cgcaagttcc
240
acaaatgcat atatgctgat ctatagactg aaggatccag ccagaaatgc aaaatttcta
300
gaagtggatg aatacccaga acatattaaa aacttggtgc agaagagag agagttggaa
360
gaacaagaaa agagacaacg agaaattgag cgcaatacat gcaagataaa attattctgt
420
ttgcatccta caaaacaagt aatgatggaa aataaattgg aggttcataa ggataagaca
480
ttaaggaag cagtagaaat gccttataag atgatggatt tagaagaggt aatacccctg
540
gattgctgtc gccttgtaa atatgatgag tttcatgatt atctagaacg gtcatatgaa
600
ggagaagaag atacaccaat ggggcttcta ctagggtggc tcaagtcaac atatatgttt
660
gatctgtgtg tggagacgag aaagcctgat caggttttcc aatcttataa acctggaggg
720
gagccatttt acaccatttt tagttggtct gtacttagaa ttttctctgag aaaggttttt
780

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tttttattgt agcaatgaac ataatttaca ttttgtatat ggtcttaca tgtagaataa
 840
 ttttgacagg ttgagaagta ctcagcacca gcttgggaatt aagttctaga ttacttgcaa
 900
 agagttgtgt acataatttt aaaaacaaca aaaaacaaca aagcttctag cttacgggtct
 960
 tcagtggggtt tttttctctc cagtgggcggt tactgaatca ttctggatgc tgtcaatccc
 1020
 taaagttatc aattgctctc ttaggaagat ct
 1052

<210> 3674

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3674

Xaa	Ile	Ser	Lys	Ser	Gly	Leu	Glu	Lys	Asn	Ser	Leu	Ile	Tyr	Glu	Leu
1			5					10						15	
Phe	Ser	Val	Met	Val	His	Ser	Gly	Ser	Ala	Ala	Gly	Gly	His	Tyr	Tyr
		20					25					30			
Ala	Cys	Ile	Lys	Ser	Phe	Ser	Asp	Glu	Gln	Trp	Tyr	Ser	Phe	Asn	Asp
	35					40					45				
Gln	His	Val	Ser	Arg	Ile	Thr	Gln	Glu	Asp	Ile	Lys	Lys	Thr	His	Gly
50					55					60					
Gly	Ser	Ser	Gly	Ser	Arg	Gly	Tyr	Tyr	Ser	Ser	Ala	Phe	Ala	Ser	Ser
65			70						75					80	
Thr	Asn	Ala	Tyr	Met	Leu	Ile	Tyr	Arg	Leu	Lys	Asp	Pro	Ala	Arg	Asn
			85					90					95		
Ala	Lys	Phe	Leu	Glu	Val	Asp	Glu	Tyr	Pro	Glu	His	Ile	Lys	Asn	Leu
			100				105						110		
Val	Gln	Lys	Glu	Arg	Glu	Leu	Glu	Gln	Glu	Lys	Arg	Gln	Arg	Glu	
	115					120					125				
Ile	Glu	Arg	Asn	Thr	Cys	Lys	Ile	Lys	Leu	Phe	Cys	Leu	His	Pro	Thr
	130				135					140					
Lys	Gln	Val	Met	Met	Glu	Asn	Lys	Leu	Glu	Val	His	Lys	Asp	Lys	Thr
145				150					155					160	
Leu	Lys	Glu	Ala	Val	Glu	Met	Ala	Tyr	Lys	Met	Met	Asp	Leu	Glu	Glu
			165				170						175		
Val	Ile	Pro	Leu	Asp	Cys	Cys	Arg	Leu	Val	Lys	Tyr	Asp	Glu	Phe	His
			180				185						190		
Asp	Tyr	Leu	Glu	Arg	Ser	Tyr	Glu	Gly	Glu	Glu	Asp	Thr	Pro	Met	Gly
	195					200					205				
Leu	Leu	Leu	Gly	Gly	Val	Lys	Ser	Thr	Tyr	Met	Phe	Asp	Leu	Leu	Leu
210					215						220				
Glu	Thr	Arg	Lys	Pro	Asp	Gln	Val	Phe	Gln	Ser	Tyr	Lys	Pro	Gly	Gly
225				230					235					240	
Glu	Pro	Phe	Tyr	Thr	Ile	Phe	Ser	Trp	Ser	Val	Leu	Arg	Ile	Phe	Leu
			245					250						255	
Arg	Lys	Val	Phe	Phe	Leu	Leu									
			260												

<210> 3675

<211> 837

<212> DNA

<213> Homo sapiens

<400> 3675

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nntccggaga tgtgaagaag gggggcgagc ggacaggaag atgaagggaag caaagctgcc
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cgccgcggga caggcgtcta ggtgaacaag aaaatgaccg aagaaacaca cccagacgat
120
gacagctata ttgtgcgtgt caagcctgtg gttatgacca gagatgactc cagcggggga
180
tggttcccac aggaaggagg cgggatcagt cgcgtcgggg tctgtaaggt catgcacccc
240
gaaggcaatg gacgaagcgg ctttctcatc catggtgaac gacagaaaga caaactggtg
300
gtattggaat gctatgtaag aaaggacttg gtctacacca aagccaatcc aacgtttcat
360
cactggaagg tcgataatag gaagtttga cttactttcc aaagccctgc tgatgcccca
420
gcctttgaca ggggagtaag gaaagcaatc gaagacctta tagaagaagt agaaaatgat
480
tctggcgggc ccagaagcct cctggcctac ccactgtcct cctgtaatca gaggcccgag
540
gtgtacagct gccactgaaa aggaaggga tctgtgacct ctggagccct ggttcggttt
600
aggccttggt ctatgggtaa gtgagtagta ggcattgtgt tacatctgat cgtggcctgg
660
agggcccttg ggcagtcagt tctcatggtg ggcttgacta gagtccacag atgcaaacac
720
aaaaattctc cactgcagca catccaggta tcaaatcaga ggggttaaaga agccatagac
780
agggcccttg gaagaagaa atatcaagca aggcattgta ataccaaatt cagatct
837

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<210> 3676

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3676

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Met Thr Glu Glu Thr His Pro Asp Asp Asp Ser Tyr Ile Val Arg Val
1          5          10          15
Lys Ala Val Val Met Thr Arg Asp Asp Ser Ser Gly Gly Trp Phe Pro
20          25          30
Gln Glu Gly Gly Ile Ser Arg Val Gly Val Cys Lys Val Met His
35          40          45
Pro Glu Gly Asn Gly Arg Ser Gly Phe Leu Ile His Gly Glu Arg Gln
50          55          60
Lys Asp Lys Leu Val Val Leu Glu Cys Tyr Val Arg Lys Asp Leu Val
65          70          75          80
Tyr Thr Lys Ala Asn Pro Thr Phe His His Trp Lys Val Asp Asn Arg
85          90          95
Lys Phe Gly Leu Thr Phe Gln Ser Pro Ala Asp Ala Arg Ala Phe Asp
100         105         110
Arg Gly Val Arg Lys Ala Ile Glu Asp Leu Ile Glu Glu Val Glu Asn

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      115              120              125
Asp Ser Gly Gly Pro Arg Arg Leu Leu Ala Tyr Pro Leu Ser Ser Cys
    130              135              140
Asn Gln Arg Pro Arg Val Tyr Ser Cys His
    145              150

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<210> 3677
 <211> 418
 <212> DNA
 <213> Homo sapiens

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<400> 3677
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ttcatgccaag agctcgtcaa gaatctccta ggcgagatgc ctctgtgggt ctgccagagt
120
tgccgaagaag gcattggagga agatgaaagg cagacaggtc gagaacatgc agtggcgatc
180
tccttctcac acacatcctg caaatcacag tcttgtggag atgactctca ttcttctctg
240
tcttctctct catcatcctc atcctcgtcc tcctcttctt gccctgggaa ctccggagagc
300
tgggataccta gctcgttctt gtcggcacat aagctctcgg gcctctggaa ttcccccacat
360
tccagtgggg ccattgccagg cagctctctt gggagtcctc ctaccatccc tggcgcgcg
418

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<210> 3678
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 3678
Xaa Glu Glu Gly Pro Ser Gln Asn Gly Leu Val Leu Gln Gly Glu Lys
 1          5          10          15
Leu Pro Pro Asp Phe Met Pro Lys Leu Val Lys Asn Leu Leu Gly Glu
    20          25          30
Met Pro Leu Trp Val Cys Gln Ser Cys Arg Lys Ser Met Glu Glu Asp
    35          40          45
Glu Arg Gln Thr Gly Arg Glu His Ala Val Ala Ile Ser Leu Ser His
    50          55          60
Thr Ser Cys Lys Ser Gln Ser Cys Gly Asp Asp Ser His Ser Ser Ser
    65          70          75          80
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Cys Pro Gly
    85          90          95
Asn Ser Gly Asp Trp Asp Pro Ser Ser Phe Leu Ser Ala His Lys Leu
    100          105          110
Ser Gly Leu Trp Asn Ser Pro His Ser Ser Gly Ala Met Pro Gly Ser
    115          120          125
Ser Leu Gly Ser Pro Pro Thr Ile Pro Gly Ala
    130          135

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<210> 3679
 <211> 567

<212> DNA

<213> Homo sapiens

<400> 3679

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 120
 gagatcgagc agatcaaggc ccagctggag acagccctga agtggaggaa ctatgaggtg
 180
 aagctgctggc tgctgctgca cctggaggaa ctgcagatgg agcatgatat cgggcactat
 240
 gacctggagt cggtgcccat gacctgggac cctgtggacc agaaccctcag gctgctcacg
 300
 ctggagggttc ctggagtgc tgagagccgc cctcagtgac tacggggcga ccacctgttt
 360
 gcccttttgt cctcgagac acaccaggag gaccccatca catataagggt ctttgtgac
 420
 aaggtggaat tggaccgtgt caagctgagc tttccatga gcctcctgag cgcctttgtg
 480
 gatgggctga ccttcaaggt gaactttacc ttcaaccgcc agcgctgcg agtccagcac
 540
 cgtgcctggg agttgacagg gcgctgg
 567

<210> 3680

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3680

Arg	Val	Lys	Gly	Tyr	Asp	Leu	Glu	Leu	Ser	Met	Ala	Leu	Gly	Thr	Tyr
1				5					10					15	
Tyr	Pro	Pro	Pro	Arg	Leu	Arg	Gln	Leu	Leu	Pro	Met	Leu	Leu	Gln	Gly
			20					25					30		
Thr	Ser	Ile	Phe	Thr	Ala	Pro	Lys	Glu	Ile	Ala	Glu	Ile	Lys	Ala	Gln
		35					40					45			
Leu	Glu	Thr	Ala	Leu	Lys	Trp	Arg	Asn	Tyr	Glu	Val	Lys	Leu	Arg	Leu
	50				55					60					
Leu	Leu	His	Leu	Glu	Glu	Leu	Gln	Met	Glu	His	Asp	Ile	Arg	His	Tyr
	65			70					75					80	
Asp	Leu	Glu	Ser	Val	Pro	Met	Thr	Trp	Asp	Pro	Val	Asp	Gln	Asn	Pro
			85					90						95	
Arg	Leu	Leu	Thr	Leu	Glu	Val	Pro	Gly	Val	Thr	Glu	Ser	Arg	Pro	Ser
		100						105					110		
Val	Leu	Arg	Gly	Asp	His	Leu	Phe	Ala	Leu	Leu	Ser	Ser	Glu	Thr	His
		115				120						125			
Gln	Glu	Asp	Pro	Ile	Thr	Tyr	Lys	Gly	Phe	Val	His	Lys	Val	Glu	Leu
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Asp	Gly	Leu	Thr	Phe	Lys	Val	Asn	Phe	Thr	Phe	Asn	Arg	Gln	Pro	Leu
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<400> 3682
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 Gly Gly Tyr Glu Ala Gln Glu Pro Leu Cys Pro Ala Val Pro Pro Arg
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<211> 4421

<212> DNA

<213> Homo sapiens

<400> 3683

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<211> 384

<212> PRT

<213> Homo sapiens

<400> 3684

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Cys	Lys	Val	Arg	Leu	Leu	Asp	Gly	Gly	Asp	Phe	Val	Ser	Leu	Ser	Ser
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Glu	Lys	Pro	Pro	Arg	Pro	Pro	Arg	Pro	Leu	His	Leu	Ser	Asp	Arg	Ser
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Phe	Arg	Arg	Lys	Lys	Asp	Ser	Val	Glu	Ser	His	Pro	Thr	Trp	Val	Asp
305				310						315				320	
Asp	Thr	Arg	Ile	Asp	Ala	Asp	Ala	Ile	Val	Glu	Lys	Ile	Val	Gln	Ser

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<211> 111

<212> PRT

<213> Homo sapiens

<400> 3686

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			20				25						30		
Pro	Val	Cys	Cys	Glu	Thr	Asp	His	Arg	Pro	Ala	Gln	Arg	Ser	Pro	Arg
		35				40					45				
Arg	Val	Pro	Cys	Leu	Cys	Pro	Pro	Arg	Arg	Arg	His	Pro	Pro	Arg	Ser
	50				55					60					
Phe	Thr	Ser	Cys	Thr	Phe	Ser	Gly	Ser	Arg	Ser	His	Ile	His	Pro	Thr
65				70						75				80	
Trp	Arg	Ser	Pro	His	Asp	Val	Pro	Gly	Ser	Val	Leu	Ala	Pro	Ala	Ala
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<211> 566

<212> DNA

<213> Homo sapiens

<400> 3687

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<210> 3690

<211> 504

<212> PRT

<213> Homo sapiens

<400> 3690

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			20					25					30		
Thr	Asp	Glu	Ala	Glu	Lys	Arg	Ser	Arg	Lys	Pro	Glu	Lys	Glu	Pro	Arg
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65					70				75				80		
Gln	Cys	Cys	Asn	Pro	Pro	Leu	Ser	Glu	Glu	Met	Leu	Pro	Pro	Gly	Glu
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<211> 418

<212> DNA

<213> Homo sapiens

<400> 3691

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<210> 3692

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3692

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Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Phe	Tyr	Val	Leu	Arg	Gln
		35					40					45			
Arg	Ile	Ala	Arg	Ile	Arg	Cys	Gln	Leu	Lys	Ala	Val	Cys	Gln	Pro	Arg
		50				55					60				
Cys	Lys	His	Gly	Glu	Cys	Ile	Gly	Pro	Asn	Lys	Cys	Lys	Cys	His	Pro
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<210> 3693

<211> 2641

<212> DNA

<213> Homo sapiens

<400> 3693

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2340

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 2641

<210> 3694

<211> 390

<212> PRT

<213> Homo sapiens

<400> 3694

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 35 40 45
 Ala Val Phe Ala Gly Met Lys Arg Pro Cys Glu Glu Thr Thr Ser Glu
 50 55 60
 Ser Asp Met Asp Glu Thr Ile Asp Val Gly Ser Glu Asn Asn Tyr Ser
 65 70 75 80
 Gly Gln Ser Thr Ser Ser Val Ile Arg Leu Asn Ser Pro Thr Thr Thr
 85 90 95
 Ser Gln Ile Met Ala Arg Lys Lys Arg Arg Gly Ile Ile Glu Lys Arg
 100 105 110
 Arg Arg Asp Arg Ile Asn Asn Ser Leu Ser Glu Leu Arg Arg Leu Val
 115 120 125
 Pro Thr Ala Phe Glu Lys Gln Gly Ser Ala Lys Leu Glu Lys Ala Glu
 130 135 140
 Ile Leu Gln Met Thr Val Asp His Leu Lys Met Leu Gln Ala Thr Gly
 145 150 155 160
 Gly Lys Gly Tyr Phe Asp Ala His Ala Leu Ala Met Asp Phe Met Ser
 165 170 175
 Ile Gly Phe Arg Glu Cys Leu Thr Glu Val Ala Arg Tyr Leu Ser Ser
 180 185 190
 Val Glu Gly Leu Asp Ser Ser Asp Pro Leu Arg Val Arg Leu Val Ser
 195 200 205
 His Leu Ser Thr Cys Ala Thr Gln Arg Glu Ala Ala Ala Met Thr Ser
 210 215 220
 Ser Met Ala His His Xaa Ser Ser Ala Pro Pro Ala Ser Leu Gly Arg
 225 230 235 240
 Arg Leu Pro Pro Pro Ala Arg Ser Ser Pro Ala Pro Ala Gln Arg Pro Pro
 245 250 255
 Cys Leu Arg Val Asn Pro Leu Ser Pro Leu His Asn Phe Arg Ser Ala
 260 265 270
 Ser Ala His Gly Ser Ala Leu Leu Thr Ala Thr Phe Ala His Ala Asp

275	280	285
Ser Ala Leu Arg Met Pro Ser Thr Gly Ser Val Ala Pro Cys Val Pro		
290	295	300
Pro Leu Ser Thr Ser Leu Leu Ser Leu Ser Ala Thr Val His Ala Ala		
305	310	315
Ala Ala Ala Ala Thr Ala Ala Ala His Ser Phe Pro Leu Ser Phe Ala		
325	330	335
Gly Ala Phe Pro Met Leu Pro Pro Asn Ala Ala Ala Val Ala Ala		
340	345	350
Ala Thr Ala Ile Ser Pro Pro Leu Ser Val Ser Ala Thr Ser Ser Pro		
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Gln Gln Thr Ser Ser Gly Thr Asn Asn Lys Pro Tyr Arg Pro Trp Gly		
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<210> 3695

<211> 1615

<212> DNA

<213> Homo sapiens

<400> 3695

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<210> 3696

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3696

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 35 40 45
 Cys Asn Ser Trp Ser Ser Pro Gln Leu Gln Ser Ser Leu Pro Glu Pro
 50 55 60
 His Asp Arg Pro Leu Ala Leu Pro Leu Ser Asp Ser Gln Ile Gln Trp
 65 70 75 80
 Phe Tyr Gln Ala Leu Asn Leu Ser Leu Pro Leu Pro Asn Phe His Ala
 85 90 95
 Gly Thr Glu Pro Asp Gly Leu Asp Pro Met Val Thr Leu Ser Leu Asn
 100 105 110
 Leu Gly Leu Ser Phe Ala Glu Leu Arg Arg Met Tyr Leu Phe Leu Asn
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 Pro Ser
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<210> 3697

<211> 550

<212> DNA

<213> Homo sapiens

<400> 3697

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<210> 3698

<211> 183

<212> PRT

<213> Homo sapiens

<400> 3698

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Ile	Gly	Leu	Cys	Arg	Tyr	Gly	Gly	Arg	Ile	Asp	Cys	Cys	Trp	Gly	Trp
		20						25					30		
Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Val	Cys	Gln	Pro	Arg	Cys
		35				40						45			
Lys	His	Gly	Glu	Cys	Ile	Gly	Pro	Asn	Lys	Cys	Lys	Cys	His	Pro	Gly
	50					55					60				
Tyr	Ala	Gly	Lys	Thr	Cys	Asn	Gln	Asp	Leu	Asn	Glu	Cys	Gly	Leu	Lys
	65				70					75				80	
Pro	Arg	Pro	Cys	Lys	His	Arg	Cys	Met	Asn	Thr	Tyr	Gly	Ser	Tyr	Lys
			85						90					95	
Cys	Tyr	Cys	Leu	Asn	Gly	Tyr	Met	Leu	Met	Pro	Asp	Gly	Ser	Cys	Ser
			100					105						110	
Ser	Ala	Leu	Thr	Cys	Ser	Met	Ala	Asn	Cys	Gln	Tyr	Gly	Cys	Asp	Val
	115						120					125			
Val	Lys	Gly	Gln	Ile	Arg	Cys	Gln	Cys	Pro	Ser	Pro	Gly	Leu	Gln	Leu
	130					135					140				
Ala	Pro	Asp	Gly	Arg	Thr	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Thr	Gly
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Arg	Ala	Ser	Cys	Pro	Lys	Phe	Arg	Gln	Cys	Val	Asn	Thr	Phe	Gly	Ser
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Tyr	Ile	Cys	Lys	Cys	His	Lys									
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<210> 3699
 <211> 510
 <212> DNA
 <213> Homo sapiens

<400> 3699
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<210> 3700
 <211> 127
 <212> PRT
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<400> 3700
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 35 40 45
 Arg Asp Pro Asn Leu Pro Val His Ile Arg Gly Trp Leu His Lys Gln
 50 55 60
 Asp Ser Ser Gly Leu Arg Leu Trp Lys Arg Arg Trp Phe Val Leu Ser
 65 70 75 80
 Gly His Cys Leu Phe Tyr Tyr Lys Asp Ser Arg Glu Glu Ser Val Leu
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<210> 3701
 <211> 733
 <212> DNA
 <213> Homo sapiens

<400> 3701

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<210> 3702

<211> 236

<212> PRT

<213> Homo sapiens

<400> 3702

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			20				25						30		
Ser	Asn	Leu	Lys	Glu	His	Lys	Lys	Thr	His	Thr	Ala	Asp	Lys	Val	Phe
	35						40					45			
Thr	Cys	Asp	Glu	Cys	Gly	Lys	Ser	Phe	Asn	Met	Gln	Arg	Lys	Leu	Val
	50					55				60					
Lys	His	Arg	Ile	Arg	His	Thr	Gly	Glu	Arg	Pro	Tyr	Ser	Cys	Ser	Ala
65					70				75						80
Cys	Gly	Lys	Cys	Phe	Gly	Gly	Ser	Gly	Asp	Leu	Arg	Arg	His	Val	Arg
			85						90					95	
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Glu	Ile	Cys	Asn	Lys	Cys
			100					105					110		
Phe	Thr	Arg	Ser	Ala	Val	Leu	Arg	Arg	His	Lys	Lys	Met	His	Cys	Lys
			115				120					125			
Ala	Gly	Asp	Glu	Ser	Pro	Asp	Val	Leu	Glu	Glu	Leu	Ser	Gln	Ala	Ile
	130					135					140				
Glu	Thr	Ser	Asp	Leu	Glu	Lys	Ser	Gln	Ser	Ser	Asp	Ser	Phe	Ser	Gln
145					150				155						160
Asp	Thr	Ser	Val	Thr	Leu	Met	Pro	Val	Ser	Val	Lys	Leu	Pro	Val	His

165										170										175																							
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Tyr	Cys	Lys	Leu	Arg	Ser	Met	Ile	Gln	Pro	His	Gly	Val	Ser	Asp	Gln	Tyr	Cys	Lys	Leu	Arg	Ser	Met	Ile	Gln	Pro	His	Gly	Val	Ser	Asp	Gln												
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210										215										220																							
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420	cctggcacc	tgctggggcc	caagcgtgag	gtggacatgc	acccccctct	gccccagcct																																					
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720	caggaagatt	attttccccc	caacctcttt	gtcaagggtc	atgggaaact	gtgccccctg																																					
780	ccgggttacc	ttcccccaac	caagaatggg	gcgagcccca	agaggcccag	ccgccccatc																																					
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<211> 619

<212> PRT

<213> Homo sapiens

<400> 3704

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Asp	Leu	Ser	Leu	Leu	Ser	Leu	Pro	Pro	Gly	Thr	Ser	Pro	Val	Gly	Ser
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Glu	Ser	Gln	His	Tyr	Gly	Pro	Ser	Val	Ile	Thr	Ser	Leu	Asp	Glu	Gln			
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Asp	Ala	Leu	Gly	His	Phe	Phe	Gln	Tyr	Arg	Gly	Thr	Pro	Ser	His	Phe			
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Ala	Leu	Arg	Glu	Gly	His	Gly	Gly	Pro	Leu	Pro	Ser	Gly	Pro	Ser	Leu			
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<211> 1737

«212» DNA

<213> Homo sapiens

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<210> 3706

<211> 191

<212> PRT

<213> Homo sapiens

<400> 3706

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Ala	Gly	Thr	Glu	Ala	Gly	Arg	Val	Gly	Gly	Val	Thr	Val	Glu	Gln	Gly
	50					55				60					
Lys	Ser	Leu	Ile	Asn	Tyr	Glu	Pro	His	Gly	Thr	Arg	Thr	Ala	Gly	Phe
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Thr	Ala	His	Pro	Pro	Lys	Ser	Thr	Ser	Val	Cys	Val	Cys	Xaa	Arg	Gln
			85					90						95	
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		100					105						110		
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		115				120						125			
Thr	Cys	Val	His	Val	Gln	Thr	Ala	Tyr	Leu	Cys	Thr	Cys	Val	Cys	Pro
	130				135						140				
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<211> 585

<212> DNA

<213> Homo sapiens

<400> 3707

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<210> 3708

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3708

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			20					25					30		
Glu	Asn	Ala	Phe	Asp	Asn	Ile	Gln	Leu	Pro	Tyr	Met	Ile	Lys	Thr	Leu
		35					40					45			
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	50					55				60					
Tyr	Asp	Arg	Pro	Xaa	Val	Ser	Ile	Ile	Leu	Asn	Gly	Glu	Asn	Leu	Gln
65					70					75				80	
Glu	Leu	Gln	Thr	Phe	Gly	Leu	Arg	Ser	Gly	Thr	Gln	Gln	Gly	Cys	Pro
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<210> 3709

<211> 3768

<212> DNA

<213> Homo sapiens

<400> 3709

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3768

<210> 3710
<211> 70
<212> PRT
<213> Homo sapiens

<400> 3710
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1 5 10 15
Glu Gln Thr Phe Lys Lys Met Glu Asn Tyr Leu Arg His Lys Gln Leu
20 25 30
Cys Asp Val Ile Leu Val Ala Gly Asp Arg Arg Ile Pro Ala His Arg
35 40 45
Leu Val Leu Ser Ser Val Ser Asp Tyr Phe Ala Ala Met Phe Thr Asn
50 55 60
Asp Val Arg Glu Ala Arg
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<210> 3711
<211> 1366
<212> DNA
<213> Homo sapiens

<400> 3711
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240
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<210> 3712

<211> 368

<212> PRT

<213> Homo sapiens

<400> 3712

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 Asp Trp Tyr Leu Gly Asn Leu Trp Lys Asn His Arg Pro Trp Pro Ala
 20 25 30
 Leu Gly Arg Gly Phe Asn Thr Gly Val Ile Leu Leu Arg Leu Asp Arg
 35 40 45
 Leu Arg Gln Ala Gly Trp Glu Gln Met Trp Arg Leu Thr Ala Arg Arg
 50 55 60
 Glu Leu Leu Ser Leu Pro Ala Ala Ser Leu Ala Asp Gln Asp Ile Phe
 65 70 75 80
 Asn Ala Val Ile Lys Glu His Pro Gly Leu Val Gln Arg Leu Pro Cys
 85 90 95
 Val Trp Asn Val Gln Leu Ser Asp His Thr Leu Ala Glu Arg Cys Tyr
 100 105 110
 Ser Glu Ala Ser Asp Leu Lys Val Ile His Trp Asn Ser Pro Lys Lys
 115 120 125
 Leu Arg Val Lys Asn Lys His Val Glu Phe Phe Arg Asn Phe Tyr Leu
 130 135 140
 Thr Phe Leu Glu Tyr Asp Gly Asn Leu Leu Arg Arg Glu Leu Phe Val
 145 150 155 160
 Cys Pro Ser Gln Pro Pro Pro Gly Ala Glu Gln Leu Gln Gln Ala Leu
 165 170 175
 Ala Gln Leu Asp Glu Glu Asp Pro Cys Phe Glu Phe Arg Gln Gln Gln
 180 185 190
 Leu Thr Val His Arg Val His Val Thr Phe Leu Pro His Glu Pro Pro
 195 200 205
 Pro Pro Arg Pro His Asp Val Thr Leu Val Ala Gln Leu Ser Met Asp
 210 215 220
 Arg Leu Gln Met Leu Glu Ala Leu Cys Arg His Trp Pro Gly Pro Met

225		230		235		240									
Ser	Leu	Ala	Leu	Tyr	Leu	Thr	Asp	Ala	Glu	Ala	Gln	Gln	Phe	Leu	His
				245				250						255	
Phe	Val	Glu	Ala	Ser	Pro	Val	Leu	Ala	Ala	Arg	Gln	Asp	Val	Ala	Tyr
				260				265						270	
His	Val	Val	Tyr	Arg	Glu	Gly	Pro	Leu	Tyr	Pro	Val	Asn	Gln	Leu	Arg
				275				280						285	
Asn	Val	Ala	Leu	Ala	Gln	Ala	Leu	Thr	Pro	Tyr	Val	Phe	Leu	Ser	Asp
				290				295						300	
Ile	Asp	Phe	Leu	Pro	Ala	Tyr	Ser	Leu	Tyr	Asp	Tyr	Leu	Arg	Ala	Ser
				305				310						315	
Ile	Glu	Gln	Leu	Gly	Leu	Gly	Ser	Arg	Arg	Lys	Ala	Ala	Leu	Val	Val
				325				330						335	
Pro	Ala	Phe	Glu	Thr	Leu	Arg	Tyr	Arg	Phe	Ser	Phe	Pro	His	Ser	Lys
				340				345						350	
Val	Glu	Leu	Leu	Ala	Leu	Leu	Asp	Ala	Gly	Thr	Leu	Tyr	Thr	Phe	Arg
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<210> 3713

<211> 1719

<212> DNA

<213> Homo sapiens

<400> 3713

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120
tccgcacccc ttaagttctc cggtcgggcg gcagttcttg aacacttagc cgcgccatcc
180
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240
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gtacacccag tacaggatga acgggattca gggtcagacg gtgaggatga tgtaaatgag
360
caacactccg gatcagacac tggaagtgtg gaacgtcatt cagagaatga aactagtgt
420
cgagaagatg gccccccaa aggacatcat gtgacagact ctgagaacga tgagccctta
480
aatcttaagt ctagtgaact tgaagtgtg gagcttcaca ggcaaaagga cagcgactct
540
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600
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660
gaggaaattc ttaatgggca tgcaagtgtc tcagaaaacg aagatgttgg gaagcatccc
720
gccagtgtat ctgagattga ggagctccag aagagtcctg ctagtgaactc tgaacagaa
780
gatgtcttaa aacctcaaat cagtgaactc gagagtgtg agcccccaag gcaccaagcc
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agtgaactcg aaaatgagga gcctcccaaa cctcgaatga gtgattctga aagtgtgagg
900

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ctctcctaaac ctcaggtcag tgattcagaa agtgaggaac ccccaaggca ccaggccagt
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 1080
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 1320
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 1620
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 1680
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 1719

<210> 3714

<211> 488

<212> PRT

<213> Homo sapiens

<400> 3714

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 20 25 30
 Val Asn Glu Gln His Ser Gly Ser Asp Thr Gly Ser Val Glu Arg His
 35 40 45
 Ser Glu Asn Glu Thr Ser Asp Arg Glu Asp Gly Pro Pro Lys Gly His
 50 55 60
 His Val Thr Asp Ser Glu Asn Asp Glu Pro Leu Asn Leu Asn Ala Ser
 65 70 75 80
 Asp Ser Glu Ser Glu Glu Leu His Arg Gln Lys Asp Ser Asp Ser Glu
 85 90 95
 Ser Glu Glu Arg Ala Glu Pro Pro Ala Ser Asp Ser Glu Asn Glu Asp
 100 105 110
 Val Asn Gln His Gly Ser Asp Ser Glu Ser Glu Glu Thr Arg Lys Leu
 115 120 125
 Pro Gly Ser Asp Ser Glu Asn Glu Glu Leu Leu Asn Gly His Ala Ser
 130 135 140
 Asp Ser Glu Asn Glu Asp Val Gly Lys His Pro Ala Ser Asp Ser Glu

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145              150              155              160
Ile Glu Glu Leu Gln Lys Ser Pro Ala Ser Asp Ser Glu Thr Glu Asp
      165              170              175
Ala Leu Lys Pro Gln Ile Ser Asp Ser Glu Ser Glu Glu Pro Pro Arg
      180              185              190
His Gln Ala Ser Asp Ser Glu Asn Glu Glu Pro Pro Lys Pro Arg Met
      195              200              205
Ser Asp Ser Glu Ser Glu Glu Leu Pro Lys Pro Gln Val Ser Asp Ser
      210              215              220
Glu Ser Glu Glu Pro Pro Arg His Gln Ala Ser Asp Ser Glu Asn Glu
225              230              235              240
Glu Leu Pro Lys Pro Arg Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro
      245              250              255
Arg His Gln Ala Ser Asp Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg
      260              265              270
Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro Arg Asn Gln Ala Ser Asp
      275              280              285
Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg Val Ser Asp Ser Glu Ser
290              295              300
Glu Gly Pro Gln Lys Gly Pro Ala Ser Asp Ser Glu Thr Glu Asp Ala
305              310              315              320
Ser Arg His Lys Gln Lys Pro Glu Ser Asp Asp Ser Asp Arg Glu
      325              330              335
Asn Lys Gly Glu Asp Thr Glu Met Gln Asn Asp Ser Phe His Ser Asp
      340              345              350
Ser His Met Asp Arg Lys Lys Phe His Ser Ser Asp Ser Glu Glu Glu
      355              360              365
Glu His Lys Lys Gln Lys Met Asp Ser Asp Glu Asp Glu Lys Glu Gly
370              375              380
Glu Glu Glu Lys Val Ala Lys Arg Lys Ala Ala Val Leu Ser Asp Ser
385              390              395              400
Glu Asp Glu Glu Lys Ala Ser Ala Lys Lys Ser Arg Val Val Ser Asp
      405              410              415
Ala Asp Asp Ser Asp Ser Asp Ala Val Ser Asp Lys Ser Gly Lys Arg
      420              425              430
Glu Lys Thr Ile Ala Ser Asp Ser Glu Glu Glu Ala Gly Lys Glu Leu
      435              440              445
Ser Asp Lys Lys Asn Glu Glu Lys Asp Leu Phe Gly Ser Asp Ser Glu
      450              455              460
Ser Gly Asn Glu Glu Glu Asn Leu Ile Ala Asp Ile Phe Gly Glu Ser
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Gly Asp Glu Glu Glu Glu Phe
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<210> 3715

<211> 288

<212> DNA

<213> Homo sapiens

<400> 3715

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accacatccc tggaggctcg aattattgcc ttgtctggca agatccgcag ttatgaagaa
120

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cacttgagaa aacatcgaaa ggacaaagcc cacaaacgct atctgctaata gagcattgac
 180
 cagaggaaaa agatgctcaa aaacctccgt aacaccaact atgatgtctt tgagaagata
 240
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 288

<210> 3716

<211> 96

<212> PRT

<213> Homo sapiens

<400> 3716

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Arg	Val	Lys	Asp	Thr	Thr	Ser	Leu	Glu	Ala	Arg	Ile	Ile	Ala	Leu	Ser
		20						25					30		
Gly	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu	Lys	His	Arg	Lys	Asp
		35						40					45		
Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile	Asp	Gln	Arg	Lys	Lys
		50						55			60				
Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp	Val	Phe	Glu	Lys	Ile
65					70					75				80	
Cys	Trp	Gly	Leu	Gly	Ile	Glu	Tyr	Thr	Phe	Pro	Pro	Leu	Tyr	Tyr	Arg
			85						90					95	

<210> 3717

<211> 1545

<212> DNA

<213> Homo sapiens

<400> 3717

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 120
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 180
 tttagcaaat aaaagtgtgg atttttgtga aaggtacaca ttttctttaa caagtaaaag
 240
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 300
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 360
 gccagtgaag gtaacagaga ctgttcaaaa cctgtggcta gcactaattt agacaatgaa
 420
 gctatgcagc aagatttgtg atttgagaat gaagaaaata cccagtctgt aggtatatgt
 480
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 540
 ttgttatttg acagtataaa attgtcacac ttgattctgg attctagtag caagatatgt
 600
 gatttgaatg ccaacactga atcagaagta ccaggaggtc agagtgttgg tgttcaaggg
 660

gaagcagcgt gtgtcagtat tccacattta gatctgaaga atgtttctga tgggtataaa
 720
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 780
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 840
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 900
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 1020
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<210> 3718

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3718

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Gly	Ile	Leu	Leu	Glu	Pro	Cys	Ser	Asp	Arg	Gly	Asp	Ser	Glu	Asp	Gly
			20					25					30		
Cys	Leu	Glu	Arg	Glu	Glu	Tyr	Leu	Leu	Phe	Asp	Ser	Asp	Lys	Leu	Ser
		35				40					45				
His	Leu	Ile	Leu	Asp	Ser	Ser	Ser	Lys	Ile	Cys	Asp	Leu	Asn	Ala	Asn
	50			55						60					
Thr	Glu	Ser	Glu	Val	Pro	Gly	Gly	Gln	Ser	Val	Gly	Val	Gln	Gly	Glu
	65			70				75					80		
Ala	Ala	Cys	Val	Ser	Ile	Pro	His	Leu	Asp	Leu	Lys	Asn	Val	Ser	Asp
			85					90					95		
Gly	Asp	Lys	Trp	Glu	Glu	Pro	Phe	Pro	Ala	Phe	Lys	Ser	Trp	Gln	Glu
			100				105						110		
Asp	Ser	Glu	Ser	Gly	Glu	Ala	Gln	Leu	Ser	Pro	Gln	Ala	Gly	Arg	Met
		115				120						125			
Asn	His	His	Pro	Leu	Glu	Glu	Asp	Cys	Pro	Pro	Val	Leu	Ser	His	Arg

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      130              135              140
Ser Leu Asp Phe Gly Gln Ser Gln Arg Phe Leu His Asp Pro Glu Lys
145              150              155              160
Leu Asp Ser Ser Ser Lys Ala Leu Ser Phe Thr Arg Ile Arg Arg Ser
      165              170              175
Ser Phe Ser Ser Lys Asp Glu Lys Arg Glu Asp Arg Thr Pro Tyr Gln
      180              185              190
Leu Val Lys Lys Leu Gln Lys Lys Ile Arg Gln Phe Glu Glu Gln Phe
      195              200              205
Glu Arg Glu Arg Asn Ser Lys Pro Ser Tyr Ser Asp Ile Ala Ala Asn
      210              215              220
Pro Lys Val Leu Lys Trp Met Thr Glu Leu Thr Lys Leu Arg Lys Gln
      225              230              235              240
Ile Lys Asp Ala Lys His Lys Asn Ser Asp Gly Glu Phe Val Pro Gln
      245              250              255
Thr Arg Pro Arg Ser Asn Thr Leu Pro Lys Ser Phe Gly Ser Ser Leu
      260              265              270
Asp His Glu Asp Glu Glu Asn Glu Asp Glu Pro Lys Val Ile Gln Lys
      275              280              285
Glu Lys Lys Pro Ser Lys Glu Ala Thr Leu Glu Leu Ile Leu Lys Arg
      290              295              300
Leu Lys Glu Lys Arg Ile Glu Arg Cys Leu Pro Glu Asp Ile Lys Lys
      305              310              315              320
Met Thr Lys Asp His Leu Val Glu Glu Lys Ala Ser Leu Gln Lys Ser
      325              330              335
Leu Leu Tyr Tyr Glu Ser Gln His Gly Arg Pro Val Thr Lys Glu Glu
      340              345              350
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      355              360              365
Met Leu Thr Arg Ala Ser
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<210> 3719

<211> 422

<212> DNA

<213> Homo sapiens

<400> 3719

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120
gggcaaccag aaccccggtt gggaaagaat aacaaaaaaa agtttgagtg caacagtaga
180
cagcccggtt gcaaaaatgt gtgttttgat gacttcttcc ccatttccca agtcagactt
240
tgggccttac aactgataat ggtctccaca cttcacttc ttgtgggttt acatgtagcc
300
tatcatgagg gttagagagaa aaggcacaga aagaaactct atgtcagccc aggtacaagt
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420
nn
422

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<210> 3720

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3720

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      20             25             30
Asn Gln Lys Lys Phe Glu Cys Asn Ser Arg Gln Pro Gly Cys Lys Asn
      35             40             45
Val Cys Phe Asp Asp Phe Phe Pro Ile Ser Gln Val Arg Leu Trp Ala
      50             55             60
Leu Gln Leu Ile Met Val Ser Thr Pro Ser Leu Val Val Leu His
      65             70             75             80
Val Ala Tyr His Glu Gly Arg Glu Lys Arg His Arg Lys Lys Leu Tyr
      85             90             95
Val Ser Pro Gly Thr Met Asp Gly Gly Leu Trp Tyr Ala Tyr Leu Ile
      100            105            110
Ser Leu Ile Val Lys Thr Gly Phe Glu Thr
      115            120

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<210> 3721

<211> 4728

<212> DNA

<213> Homo sapiens

<400> 3721

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 120
ccaccgaca ttgctgcgcg gcagcagaag atcagcaaac agcagctgca gacagtcaag
 180
gaccggtttc aggccttctc caatggggaa acccagatca tggctgacga agccttcatg
 240
aacgctgtgc agagtacta tgaggtgttc ctgaagagcg accgtgtggc ccgcatggtt
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 480
atgacagcca gcgcagcctc cgagctgatt ctgagcaagg agcaactcta tgagatgttc
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cagaacattc ttgggatcaa gaagttcgaa catcagctcc tttacaatgc ctgccagctg
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gacaatccag atgagcaagc agcccagatc agacgagagc tggatggagc tctacaaatg
 660
gcagacccaaa tagccaggga acgcaaatct ccaagtttg tatccaaaga aatggaaaaa
 720

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atgtacattg aggagctgaa gtcattctgtc aacctgctca tggccaactt ggagagcatg
780
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960
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1020
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<211> 1216

<212> PRT

<213> Homo sapiens

<400> 3722

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 85 90 95
 Ala Arg Met Val Gln Ser Gly Gly Cys Ser Ala Asn Asp Ser Arg Glu
 100 105 110
 Val Phe Lys Lys His Ile Glu Lys Arg Val Arg Ser Leu Pro Glu Ile
 115 120 125
 Asp Gly Leu Ser Lys Glu Thr Val Leu Ser Ser Trp Met Ala Lys Phe
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 Asp Ala Ile Tyr Arg Gly Glu Glu Asp Pro Arg Lys Gln Gln Ala Arg
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 Met Thr Ala Ser Ala Ala Ser Glu Leu Ile Leu Ser Lys Glu Gln Leu

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His	Tyr	Ser	Phe	Ala	Phe	Cys	Ala	Ser	His	Val	His	Gly	Asn	Arg	Pro
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Ala Lys Leu Ser Arg Tyr Asp Glu Gly Thr Leu Phe Ser Ser Phe Leu
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Ser Phe Thr Val Lys Ala Ala Ser Lys Tyr Val Asp Val Pro Lys Pro
          1075          1080          1085
Gly Met Asp Val Ala Asp Ala Tyr Val Thr Phe Val Arg His Ser Gln
          1090          1095          1100
Asp Val Leu Arg Asp Lys Val Asn Glu Glu Met Tyr Ile Glu Arg Leu
          1105          1110          1115          1120
Phe Asp Gln Trp Tyr Asn Ser Ser Met Asn Val Ile Cys Thr Trp Leu
          1125          1130          1135
Thr Asp Arg Met Asp Leu Gln Leu His Ile Tyr Gln Leu Lys Thr Leu
          1140          1145          1150
Ile Arg Met Val Lys Lys Thr Tyr Arg Asp Phe Arg Leu Gln Gly Val
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Leu Asp Ser Thr Leu Asn Ser Lys Thr Tyr Glu Thr Ile Arg Asn Arg
          1170          1175          1180
Leu Thr Val Glu Glu Ala Thr Ala Ser Val Ser Glu Gly Gly Gly Leu
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<210> 3723

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3723

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<210> 3724

<211> 203

<212> PRT

<213> Homo sapiens

<400> 3724

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 Asp Phe Gly Leu Ala Arg Arg Tyr Asn Pro Asn Glu Lys Leu Lys Val
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 Asn Phe Gly Thr Pro Glu Phe Leu Ser Pro Glu Val Val Asn Tyr Asp
 50 55 60
 Gln Ile Ser Asp Lys Thr Asp Met Trp Ser Met Gly Val Ile Thr Tyr
 65 70 75
 Met Leu Leu Ser Gly Leu Ser Pro Phe Leu Gly Asp Asp Asp Thr Glu
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 Thr Leu Asn Asn Val Leu Ser Gly Asn Trp Tyr Phe Asp Glu Glu Thr
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 Phe Glu Ala Val Ser Asp Glu Ala Lys Asp Phe Val Ser Asn Leu Ile
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 Val Lys Asp Gln Arg Ala Arg Met Asn Ala Ala Gln Cys Leu Ala His
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 145 150 155 160
 Leu Lys Ser Gln Ile Leu Leu Lys Lys Tyr Leu Met Lys Arg Arg Trp
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<210> 3725

<211> 1244

<212> DNA

<213> Homo sapiens

<400> 3725

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<210> 3726

<211> 325

<212> PRT

<213> Homo sapiens

<400> 3726

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			35				40					45			
Ala	Phe	Lys	Ile	Val	Pro	Tyr	Asn	Thr	Glu	Thr	Leu	Asp	Lys	Leu	Leu
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Thr	Glu	Ser	Leu	Lys	Asn	Asn	Ile	Pro	Ala	Ser	Gly	Leu	His	Leu	Phe
						70				75				80	
Gly	Ile	Asn	Gln	Leu	Glu	Glu	Glu	Asp	Met	Met	Thr	Asn	Gln	Arg	Asp
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Glu	Glu	Leu	Pro	Thr	Leu	Leu	His	Phe	Ala	Ala	Lys	Tyr	Gly	Leu	Lys
			100					105					110		
Asn	Leu	Thr	Ala	Leu	Leu	Leu	Thr	Cys	Pro	Gly	Ala	Leu	Gln	Ala	Tyr

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<210> 3728

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3728

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Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu
 35           40           45
Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser
 50           55           60
Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg
 65           70           75           80
Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp
 85           90           95
Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val
100           105           110
Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg
115           120           125
Asn Ser Val Trp Arg Tyr Asp Trp Val Thr Ser Tyr Lys Val Gln Phe
130           135           140
Ser Asn Asp Ser Arg Thr Trp Trp Gly Ser Arg Asn His Ser Ser Gly
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165           170           175
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<210> 3729

<211> 1552

<212> DNA

<213> Homo sapiens

<400> 3729

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<210> 3730

<211> 422

<212> PRT

<213> Homo sapiens

<400> 3730

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Gln Asn Val Tyr Ser Val Pro Gly Ser Gln Tyr Leu Tyr Asn Gln Pro

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35 40 45
 Ser Cys Tyr Arg Gly Phe Gln Thr Val Lys His Arg Asn Glu Asn Thr
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 Cys Pro Leu Pro Gln Glu Met Lys Ala Leu Phe Lys Lys Lys Thr Tyr
 65 70 75 80
 Asp Glu Lys Lys Thr Tyr Asp Gln Gln Lys Phe Asp Ser Glu Arg Ala
 85 90 95
 Asp Gly Thr Ile Ser Ser Glu Ile Lys Ser Ala Arg Gly Ser His His
 100 105 110
 Leu Ser Ile Tyr Ala Glu Asn Ser Leu Lys Ser Asp Gly Tyr His Lys
 115 120 125
 Arg Thr Asp Arg Lys Ser Arg Ile Ile Ala Lys Asn Val Ser Thr Ser
 130 135 140
 Lys Pro Glu Phe Glu Phe Thr Thr Leu Asp Phe Pro Glu Leu Gln Gly
 145 150 155 160
 Ala Glu Asn Asn Met Ser Glu Ile Gln Lys Gln Pro Lys Trp Gly Pro
 165 170 175
 Val His Ser Val Ser Thr Asp Ile Ser Leu Leu Arg Glu Val Val Lys
 180 185 190
 Pro Ala Ala Val Leu Ser Lys Gly Glu Ile Val Val Lys Asn Asn Pro
 195 200 205
 Asn Glu Ser Val Thr Ala Asn Ala Ala Thr Asn Ser Pro Ser Cys Thr
 210 215 220
 Arg Glu Leu Ser Trp Thr Thr Pro Met Gly Tyr Val Val Arg Gln Thr Leu
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 Ser Thr Glu Leu Ser Ala Ala Pro Lys Asn Val Thr Ser Met Ile Asn
 245 250 255
 Leu Lys Thr Ile Ala Ser Ser Ala Asp Pro Lys Asn Val Ser Ile Pro
 260 265 270
 Ser Ser Glu Ala Leu Ser Ser Asp Pro Ser Tyr Asn Lys Glu Lys His
 275 280 285
 Ile Ile His Pro Thr Gln Lys Ser Lys Ala Ser Gln Gly Ser Asp Leu
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 Glu Gln Asn Glu Ala Ser Arg Lys Asn Lys Lys Lys Glu Lys Ser
 305 310 315 320
 Thr Ser Lys Tyr Glu Val Leu Thr Val Gln Glu Pro Pro Arg Ile Glu
 325 330 335
 Asp Ala Glu Glu Phe Pro Asn Leu Ala Val Ala Ser Glu Arg Arg Asp
 340 345 350
 Arg Ile Glu Thr Pro Lys Phe Gln Ser Lys Gln Gln Pro Gln Asp Asn
 355 360 365
 Phe Lys Asn Asn Val Lys Lys Ser Gln Leu Pro Val Gln Leu Asp Leu
 370 375 380
 Gly Gly Met Leu Thr Ala Leu Glu Lys Lys Gln His Ser Gln His Ala
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 405 410 415
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<210> 3731

<211> 1704

<212> DNA

<213> Homo sapiens

<400> 3731

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240
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360
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480
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540
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1560

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<210> 3732

<211> 281

<212> PRT

<213> Homo sapiens

<400> 3732

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		20						25					30		
Glu	Gly	Ile	Thr	Asp	Ala	Ser	Ser	Cys	Ala	Val	Leu	Leu	Pro	Ala	Ser
		35					40					45			
Leu	Phe	Val	Asn	Ser	His	Pro	Gly	Ile	Asp	Arg	Pro	Gly	Met	Leu	Cys
	50					55					60				
Ser	Phe	Arg	Ile	Pro	Gly	Ala	Trp	Ser	Cys	Ala	Trp	Ser	Leu	Asn	Ile
	65				70					75				80	
Gln	Ala	Asn	Asn	Cys	Phe	Ser	Thr	Gly	Leu	Ser	Arg	Arg	Val	Leu	Leu
		85						90					95		
Thr	Asn	Val	Val	Thr	Gly	His	Arg	Gln	Ser	Phe	Gly	Thr	Asn	Ser	Asp
		100						105					110		
Val	Leu	Ala	Gln	Gln	Phe	Ala	Leu	Met	Ala	Pro	Leu	Leu	Phe	Asn	Gly
		115					120					125			
Cys	Arg	Ser	Gly	Glu	Ile	Phe	Ala	Ile	Asp	Leu	Arg	Cys	Gly	Asn	Gln
		130				135					140				
Gly	Lys	Gly	Trp	Lys	Ala	Thr	Arg	Leu	Phe	His	Asp	Ser	Ala	Val	Thr
				150						155				160	
Ser	Val	Arg	Ile	Leu	Gln	Asp	Glu	Gln	Tyr	Leu	Met	Ala	Ser	Asp	Met
			165					170						175	
Ala	Gly	Lys	Ile	Lys	Leu	Trp	Asp	Leu	Arg	Thr	Thr	Lys	Cys	Val	Arg
			180					185					190		
Gln	Tyr	Glu	Gly	His	Val	Asn	Glu	Tyr	Ala	Tyr	Leu	Pro	Leu	His	Val
		195					200					205			
His	Glu	Glu	Glu	Gly	Ile	Leu	Val	Ala	Val	Gly	Gln	Asp	Cys	Tyr	Thr
		210				215					220				
Arg	Ile	Trp	Ser	Leu	His	Asp	Ala	Arg	Leu	Leu	Arg	Thr	Ile	Pro	Ser
				230						235				240	
Pro	Tyr	Pro	Ala	Ser	Lys	Ala	Asp	Ile	Pro	Ser	Val	Ala	Phe	Ser	Ser
				245					250					255	
Arg	Leu	Gly	Gly	Ser	Arg	Gly	Ala	Pro	Gly	Leu	Leu	Met	Ala	Val	Gly
			260				265						270		
Gln	Asp	Leu	Tyr	Cys	Tyr	Ser	Tyr	Ser							
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<210> 3733

<211> 515

<212> DNA

<213> Homo sapiens

<400> 3733

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<210> 3734

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3734

Xaa	Gly	Arg	Ala	Val	Arg	Arg	Val	Thr	Ala	Gly	Thr	Arg	Pro	Gly	Trp
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Val	Ser	Gly	Ser	Arg	Tyr	Arg	Arg	Gly	Arg	Arg	Arg	Gly	Arg	Leu	Lys
			20					25					30		
Gly	Lys	Asp	Pro	Gly	Ser	Ala	Pro	Ser	Ser	Val	Arg	Glu	Arg	Glu	Thr
		35					40					45			
Pro	Gly	Ala	Xaa	Pro	Cys	Leu	Pro	Arg	Arg	Gly	Trp	Cys	Val	Pro	Gly
		50				55					60				
Asp	Val	Arg	Ser	Ser	Pro	Pro	Leu	Pro	Gly	Trp	Cys	Ala	Leu	Ser	Asp
65					70				75					80	
Val	Arg	Ser	Arg	Gly	Arg	Ser	Cys	Pro	Ser	Ala	Pro	Lys	Ala	Ala	Gly
			85						90				95		
Gly	Leu	Arg	Ala	Trp	Gly	Arg	Gly	Ser	Gly	Ala	Ala	Arg	Ala	Pro	Ala
			100					105					110		
Pro	Ala	Pro	Ser	Pro	Ser	Ser	Gly	Xaa	Ser	Pro	Ser	Ser	Arg	Thr	Pro
			115				120					125			
Arg	Asp	Trp	Ser	Ala	Ser	Arg	Cys	Trp	Thr	Trp	Ser	Gly	Ala	Ala	Thr
		130				135					140				
Ala	Pro	Thr	Pro	Phe	Ser	Pro	Ala	Gln	Gln	Pro	Pro	Ser	Ser	His	Asp
145					150					155				160	
Gly	Leu	Ser	Leu	Asp	Pro	Ser	Gln	Leu	Glu	Pro					
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<210> 3735

<211> 2512

<212> DNA

<213> Homo sapiens

<400> 3735

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120
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180
tctccctcct ccaggacctt gtaagtgtct tccctgccag ctctgtgcag gaaacttcca
240
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300
aagaggaaac ggagaagaac ctggaaaagg tacagactat cattgaacat ctgcaggaaa
360
agaggcgaga gggcactttg agagtggata cctacactct agtgcagcct gaggcagaag
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accatgttga gagctaccga accatgcccc ttaccctac ctacaatgaa gtgcacttgg
480
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540
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660
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720
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840
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 1920
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 1980
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 2040
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 2160
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 2400
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<210> 3736

<211> 155

<212> PRT

<213> Homo sapiens

<400> 3736

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Ser	Gly	Arg	Pro	Ser	Ala	Thr	Gln	Lys	Lys	Met	Lys	Lys	Arg	Val	
			20					25					30		
Lys	Asp	Glu	Leu	Arg	Lys	Leu	Asn	Thr	Met	Pro	Ala	Ala	Glu	Ala	Asn
			35				40					45			
Glu	Ile	Glu	Asp	Val	Trp	His	Leu	Asp	Leu	Ser	Ser	Arg	Trp	Gln	Leu
			50			55				60					
Tyr	Arg	Leu	Trp	Leu	Gln	Leu	Tyr	Gln	Ala	Asp	Thr	Pro	Pro	Gly	Lys
65					70					75				80	
Ile	Leu	Ser	Tyr	Glu	Arg	Gln	Tyr	Arg	Thr	Ser	Ala	Glu	Arg	Met	Ala
			85						90					95	
Glu	Leu	Arg	Leu	Gln	Glu	Asp	Leu	His	Ile	Leu	Lys	Asp	Ala	Gln	Val
			100					105				110			
Val	Gly	Met	Thr	Thr	Thr	Gly	Ala	Ala	Lys	Tyr	Arg	Gln	Ile	Leu	Gln

	115		120		125										
Lys	Val	Glu	Pro	Arg	Ile	Val	Ile	Val	Glu	Glu	Ala	Ala	Glu	Val	Leu
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Glu	Ala	His	Thr	Ile	Ala	Thr	Leu	Ser	Lys	Ala					
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<210> 3737

<211> 1046

<212> DNA

<213> Homo sapiens

<400> 3737

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<210> 3738

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3738

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 35 40 45
 Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg
 50 55 60
 Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala
 65 70 75 80
 Arg Ile Asp Ala Ala Ala Phe Thr Gly Leu Ala Leu Leu Gly Ala Leu
 85 90 95
 Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe
 100 105 110
 His Gly Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu
 115 120 125
 Gln Glu Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr
 130 135 140
 Leu Tyr Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe
 145 150 155 160
 Arg Asp Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile
 165 170 175
 Ser Ser Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg
 180 185 190
 Leu Leu Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe
 195 200 205
 Arg Asp Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu
 210 215 220
 Ser Ala Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr
 225 230 235 240
 Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro
 245 250 255
 Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro
 260 265 270
 Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala
 275 280 285
 Ala Asn Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro Tyr His Pro
 290 295 300
 Ile Trp Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys
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 Cys Cys Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly
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<210> 3739

<211> 1252

<212> DNA

<213> Homo sapiens

<400> 3739

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 420
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 480
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 540
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<210> 3740

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3740

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 20 25 30
 Ser Thr Glu Ala Pro Gly His Pro Gln Glu Asp Gly Lys Gly Gln Leu
 35 40 45
 Ala Gly Glu Ser Pro Gly His Arg Glu Pro Ser Pro Gly Ser Lys Gln

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Asp Leu Pro Ser Asp Cys Leu Arg Asn Ala Gly Trp Thr Ser Arg Asn
65                      70                      75                      80
Phe Pro Phe Thr Gly Gln Pro Ala Ala Ala Pro Pro Arg Leu Gly Pro
      85                      90                      95
Ala Pro Gly Ala Ala Asp Arg Pro Ser Arg Val Pro Lys Ser Pro Ala
      100                      105                      110
Leu Ala Gln Lys Leu Gly Gln Pro Arg Asp Pro His Leu Pro Leu Pro
      115                      120                      125
Ile Ser Pro Leu Ser Gln Pro Pro Ser Pro
      130                      135

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<210> 3741

<211> 562

<212> DNA

<213> Homo sapiens

<400> 3741

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cagacagcaa gcgacggccc agctcctcaa ggccacctcc gacctcgcg ggggtggggca
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gtcgtgtcca ctgtggggat ccacgtcctg actaaccttg tgttccataga aatccctcac
120
cggcagatcg gtgcctcctg aatccccccc aaaattccca ctgggaatgt gttcctgaaa
180
gagctgcccc ggcttgagaa agcctctttt cagaccaaac ttctgtattca aagctcaaaa
240
agaactgcac acaattagga cagtcataca agatgtgtcc cctaactctg ccacaatctg
300
cgagaaggga ggcggggctt ccgagggcaa agtgcccctg ggaagggatc cgcagggaac
360
agcttttga aa ggaccacagc cccagccac gaggggagca agcacgagcc ggggagagag
420
ctctgcgctc gcacacggga ttcattctccg ccgcctctgc ccgtttccag caacacggag
480
ccaggcggaa acagtttctc cagcccatc gcctcccga ctcttctct caccgacgag
540
ctgggctgct ttcattcacgc gt
562

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<210> 3742

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3742

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Met Gly Trp Arg Asn Cys Phe Arg Leu Ala Pro Cys Cys Trp Lys Arg
1      5      10      15
Ala Glu Ala Ala Glu Met Asn Pro Val Cys Glu Arg Arg Ala Leu Ser
      20      25      30
Pro Ala Arg Ala Cys Ser Pro Arg Gly Trp Gly Leu Trp Ser Phe Gln
      35      40      45
Ser Cys Ser Leu Arg Ile Pro Ser Gln Gly His Phe Ala Leu Gly Ser
      50      55      60
Pro Ala Ser Leu Leu Ala Asp Cys Gly Arg Ile Arg Gly Ser Ile Leu

```

```

65              70              75              80
Tyr Asp Cys Pro Asn Cys Val Gln Phe Phe Leu Ser Phe Glu Tyr Glu
              85              90              95
Val Trp Ser Glu Lys Arg Leu Ser Gln Ala Trp Ala Ala Leu Ser Gly
              100              105              110
Thr His Ser Gln Trp Glu Phe Trp Val Gly Phe Arg Arg His Arg Ser
              115              120              125
Ala Gly Glu Gly Phe Leu Gly Thr Gln Gly
              130              135

```

<210> 3743

<211> 468

<212> DNA

<213> Homo sapiens

<400> 3743

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60
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120
atgatcctgc aactcaatcc cagtgagaac tgcacctgga caatagaaag accagaaaaac
180
aaaagcatca gaattatctt ttcctatgtc cagcttgatc cagatggaag ctgtgaaagt
240
gaaaacatta aagctcttga cggaacctcc agcaatgggc ctctgctagg gcaagctctgc
300
agtaaaaaacg actatgttcc tgtatttgaa tcatcatcca gtacattgac gtttcaataa
360
gttactgact cagcaagaat tcaaagaact gtctttgtgt tctagtagtt cttatttcct
420
aacatcttta ttccaaagtg tggcggttac ctggatccct ggaaggat
468

```

<210> 3744

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3744

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Xaa His Glu Pro Ser Tyr Lys Leu His Phe Gly Lys Ala Leu Thr Met
1              5              10              15
Ala Glu Ala Glu Gly Asn Ala Ser Cys Thr Val Ser Leu Gly Gly Ala
              20              25              30
Asn Met Ala Glu Thr His Lys Ala Met Ile Leu Gln Leu Asn Pro Ser
              35              40              45
Glu Asn Cys Thr Trp Thr Ile Glu Arg Pro Glu Asn Lys Ser Ile Arg
              50              55              60
Ile Ile Phe Ser Tyr Val Gln Leu Asp Pro Asp Gly Ser Cys Glu Ser
65              70              75              80
Glu Asn Ile Lys Val Phe Asp Gly Thr Ser Ser Asn Gly Pro Leu Leu
              85              90              95
Gly Gln Val Cys Ser Lys Asn Asp Tyr Val Pro Val Phe Glu Ser Ser
              100              105              110
Ser Ser Thr Leu Thr Phe Gln Ile Val Thr Asp Ser Ala Arg Ile Gln

```

115
Arg Thr Val Phe Val Phe
130

120

125

<210> 3745
<211> 345
<212> DNA
<213> Homo sapiens

<400> 3745
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60
gacgctgtgg gagaggaaaa cagccacatg tgggctggct gcttggagga gacacatgag
120
ccgtgaacac gtctcccccg gccgctccct ggttccatgc gtgctcgtct tgggcaccac
180
gagaacacag ccatgcagcc ccgacatcct cagccacagc caggcctatg cctggctgga
240
tgacgcatct gctccggacg cctctcgtg tcggtgccag gcctgccagg ccaagccccg
300
attctcaggg gcggcaggag gtgggaggca cgtttgggag gatcc
345

<210> 3746
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3746
Met Ala Gly Trp Cys Val Tyr Gly Thr Leu Trp Glu Arg Lys Thr Ala
1 5 10 15
Thr Cys Gly Leu Ala Ala Trp Arg Arg His Met Ser Arg Glu His Val
20 25 30
Ser Pro Gly Arg Ser Leu Val Pro Cys Val Leu Val Leu Gly Thr Thr
35 40 45
Arg Thr Gln Pro Cys Ser Pro Arg Ser Cys Ser His Ser His Gly Ile
50 55 60
Ala Trp Ser Asp Ala Ala Ser Ala Pro Asp Ala Ser Arg Cys Arg Cys
65 70 75 80
Gln Ala Cys Gln Ala Lys Pro Arg Phe Ser Gly Ala Ala Gly Gly Gly
85 90 95
Arg His Val Trp Ala Asp
100

<210> 3747
<211> 800
<212> DNA
<213> Homo sapiens

<400> 3747
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60
cgcgccggac cctgggatgc tcttcggccg catcccgctg cgctacgcca tactgggtgag
120

aagggggcgc gcccgccac tttctgctg agccccgcac cctctctggt ggtctcctct
 180
 gggggcgcgc tgccaatccc cgcttcccc tcccgcagat gcagatgcgc ttcgatggac
 240
 gcctgggctt ccccgggga ttcgtggaca cgcaggacag aagcctagag gacgggctga
 300
 accgcgagct gcgcgaggag ctgggcgaag cggctgccgc tttccgctg gagcgactg
 360
 actaccgcag ctcccacgtc ggggtcaggg ccacgcgttg tggcccaact ctatgccaa
 420
 cgtctgacgc tcgaggagct gttggctgtg gagccggcg caacacgcgc caaggaccac
 480
 gggctggagg tgggaccagc ctgggactct gtccctttcc caatttctc ttctcccaa
 540
 gctttctctc ccccaagaaa gcatccctgg agaaaagtct ttgcccctct gaccttgccc
 600
 tctcccccgc tttcttggtg gagttgggat cgtgatcctc tatactctga attagtactg
 660
 ccaacctggg ctttctgtaa aggtctttcc caccctttac caggagagat cctttctaga
 720
 acacactcat ccatgtctct ctgctgttcc ctattgacag tgtgatagat tatcacatta
 780
 tctaggtgtg gcaacctagg
 800

<210> 3748

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3748

Met	Gln	Met	Arg	Phe	Asp	Gly	Arg	Leu	Gly	Phe	Pro	Gly	Gly	Phe	Val
1				5					10					15	
Asp	Thr	Gln	Asp	Arg	Ser	Leu	Glu	Asp	Gly	Leu	Asn	Arg	Glu	Leu	Arg
			20					25					30		
Glu	Glu	Leu	Gly	Glu	Ala	Ala	Ala	Ala	Phe	Arg	Val	Glu	Arg	Thr	Asp
		35				40						45			
Tyr	Arg	Ser	Ser	His	Val	Gly	Val	Arg	Ala	Thr	Arg	Cys	Gly	Pro	Leu
	50				55				60						
Leu	Cys	Gln	Ala	Ser	Asp	Ala	Arg	Gly	Ala	Val	Gly	Cys	Gly	Gly	Arg
65				70					75					80	
Arg	Asn	Thr	Arg	Gln	Gly	Pro	Arg	Ala	Gly	Gly	Gly	Thr	Ser	Leu	Gly
			85					90						95	
Leu	Cys	Pro	Phe	Pro	Asn	Phe	Leu	Phe	Ser	Gln	Ser	Phe	Leu	Ser	Pro
		100					105						110		
Lys	Lys	Ala	Ser	Leu	Glu	Lys	Ser	Leu	Cys	Pro	Ser	Asp	Leu	Ala	Leu
		115				120						125			
Ser	Pro	Ala	Phe	Leu	Val	Glu	Leu	Gly	Ser						
		130				135									

<210> 3749

<211> 648

<212> DNA

<213> Homo sapiens

<400> 3749

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 ccacaacagc acgagtggcc tccccctgctg cagttagcggc ctgaggatgt cggcttcgac
 120
 ggctactcca tgccctcgga gggatcgaca agcaagcaga tgccccccag tgatgtctgaa
 180
 ggtgacccgc tgatgaacat gctgatgagg ctgcaggagg cagccaacta ctccagcccc
 240
 cagagctatg acagcgactc caacagcaac agccatcacg atgacatctt ggactcctct
 300
 ttggagtcca ctctgtgaca ggggcccgga gcccagcgcc ctctcttctt cctcacccga
 360
 ttccacctgc atccccaca tcacctgaa gatgacttcc tgagccagcc cccagccaca
 420
 gccttagagc tgcgggaaca ccgagacccc ccgtccttca gcctcgacct ggggtcaggc
 480
 atccccggcc agctgcctgc ggaccgcttc ctccacagc gagaactgca ctaccttctg
 540
 ttgtacttta attattgttt tgccttgttg ctgtgacctc cctaagacac tgaagatact
 600
 tctcgggaaa ggatcatcgc cgttgaaatg aaaaaaaaaa aaaaaaaaa
 648

<210> 3750

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3750

Arg	Ala	Pro	Trp	Glu	Asp	Pro	Ala	Lys	Trp	Val	Met	Asp	Thr	Tyr	Pro
1				5					10					15	
Trp	Ala	Ala	Ser	Pro	Gln	Gln	His	Glu	Trp	Pro	Pro	Leu	Leu	Gln	Leu
			20					25					30		
Arg	Pro	Glu	Asp	Val	Gly	Phe	Asp	Gly	Tyr	Ser	Met	Pro	Arg	Glu	Gly
		35				40					45				
Ser	Thr	Ser	Lys	Gln	Met	Pro	Pro	Ser	Asp	Ala	Glu	Gly	Asp	Pro	Leu
	50				55				60						
Met	Asn	Met	Leu	Met	Arg	Leu	Gln	Glu	Ala	Ala	Asn	Tyr	Ser	Ser	Pro
65					70				75					80	
Gln	Ser	Tyr	Asp	Ser	Asp	Ser	Asn	Ser	Asn	Ser	His	His	Asp	Asp	Ile
			85					90					95		
Leu	Asp	Ser	Ser	Leu	Glu	Ser	Thr	Leu							
			100					105							

<210> 3751

<211> 554

<212> DNA

<213> Homo sapiens

<400> 3751

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 60

cctggccccg ctgctgctcg cggctcggtc gccccgagcg gggccaaggg cgtttcctac
 120
 acgcagggcc agagtccgga gccgcggacc cgcgaggat ttctactacg tggaccacca
 180
 gggccagctt ttctggatg attccaaaat gaagaatttc atcactgtct tcaaagaccc
 240
 gcagttctcg gtcaccttct tctccgcct gagaccaac cgcagcgggc gctacgaggc
 300
 cgctttcccc ttctctcgc cctgcggcag agagcgcaac ttctgctgtc gcgaggaccg
 360
 gccggtggtc ttacgcacc tgctgaccgc ggaccacggg cctccgcgcc tctcctactg
 420
 cggcggtggc gaggccctgg ccgtgccctt cgagcggcgc cgcctgtgtc ccttggccgc
 480
 caacggcgcg ctgtaccacc cggcgccgga gcgtgcgggc ggcgtggggc tgggtgcgcc
 540
 ttgcgccctg gcc
 554

<210> 3752

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3752

Ala	Arg	Leu	Ser	Ala	Leu	Ala	Arg	Ala	Leu	Ala	Gly	Pro	Pro	Pro	Arg
1			5					10				15			
Pro	His	His	Gly	Pro	Gly	Pro	Ala	Ala	Ala	Arg	Gly	Ser	Val	Ala	Pro
			20					25				30			
Ser	Gly	Ala	Lys	Gly	Val	Ser	Tyr	Thr	Gln	Gly	Gln	Ser	Pro	Glu	Pro
			35				40					45			
Arg	Thr	Arg	Glu	Val	Phe	Leu	Leu	Arg	Gly	Pro	Pro	Gly	Pro	Ala	Phe
			50			55					60				
Pro	Gly														
65															

<210> 3753

<211> 1426

<212> DNA

<213> Homo sapiens

<400> 3753

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 120
 gctagagctc cggagatcgg gccatctggg ctctgaaagc aaattagttt tccaactcat
 180
 gtctgtgcctc ggogttaccc agacgcctgg aaggtccttc ctgcagtctg atcaccattt
 240
 ttctgtgtgc actgaccaat cagctccctt tggccttcaa cctcgggaaat gatggattag
 300
 gggagtctag aaatggacga agccctagaa acgcagctga agacgagcag aggacgcttc
 360

tcggctacag aatccctccc caccttggag ctcttatctc aggtggacat ggactgcagg
 420
 gtccacatgc gaccatcgg cctgacgtgg gtgctgcaac tgacctggc atggatcctg
 480
 ctagaagcct gtggaggagg ccgcccactc caagccagggt cccagcaaca ccatgggctg
 540
 gcagctgacg tgggcaaagg caagctgcac ctggcaggac cttgtgtgcc ctcagagatg
 600
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 660
 gaatgcgaat ccttctgga acacctccaa cgtgcccttc gcagtcgctt ccgctgcgg
 720
 ctattggggg tacgccaggc acagccgctc tgcgaggagc tctgccaggc ctggttcgcc
 780
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 840
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 900
 tcggctctgg gccacgcct accggtggct gctcctggag cccgtcactg cttcaacatc
 960
 tccatctccg cggtaacctg tcccagacca ggacgacggg gccgggaagc tccctcccg
 1020
 cgttcccga gccctgcac ctccatcctg gacgctgcgg gcagcgggag tggcagtga
 1080
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 1260
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 1320
 aaaaagtcca tgtccacctg agataagagc tgttggtctg attggggggt ccacatgcga
 1380
 cccatcgccc tgacgtgggt gctgcaactg acctcgcat ggatcc
 1426

<210> 3754

<211> 261

<212> PRT

<213> Homo sapiens

<400> 3754

Met	Asp	Glu	Ala	Leu	Glu	Thr	Gln	Leu	Lys	Thr	Ser	Arg	Gly	Arg	Phe
1				5				10					15		
Ser	Ala	Thr	Glu	Ser	Leu	Pro	Thr	Leu	Glu	Leu	Leu	Ser	Gln	Val	Asp
			20					25					30		
Met	Asp	Cys	Arg	Val	His	Met	Arg	Pro	Ile	Gly	Leu	Thr	Trp	Val	Leu
		35					40					45			
Gln	Leu	Thr	Leu	Ala	Trp	Ile	Leu	Leu	Glu	Ala	Cys	Gly	Gly	Ser	Arg
		50				55				60					
Pro	Leu	Gln	Ala	Arg	Ser	Gln	Gln	His	His	Gly	Leu	Ala	Ala	Asp	Leu
65				70						75				80	
Gly	Lys	Gly	Lys	Leu	His	Leu	Ala	Gly	Pro	Cys	Cys	Pro	Ser	Glu	Met

```

      85              90              95
Asp Thr Thr Glu Thr Ser Gly Pro Gly Asn His Pro Glu Arg Cys Gly
      100              105              110
Val Pro Ser Pro Glu Cys Glu Ser Phe Leu Glu His Leu Gln Arg Ala
      115              120              125
Leu Arg Ser Arg Phe Arg Leu Arg Leu Leu Gly Val Arg Gln Ala Gln
      130              135              140
Pro Leu Cys Glu Glu Leu Cys Gln Ala Trp Phe Ala Asn Cys Glu Asp
      145              150              155
Asp Ile Thr Cys Gly Pro Thr Trp Leu Pro Leu Ser Glu Lys Arg Gly
      165              170              175
Cys Glu Pro Ser Cys Leu Thr Tyr Gly Gln Thr Phe Ala Asp Gly Thr
      180              185              190
Asp Leu Cys Arg Ser Ala Leu Gly His Ala Leu Pro Val Ala Ala Pro
      195              200              205
Gly Ala Arg His Cys Phe Asn Ile Ser Ile Ser Ala Val Pro Arg Pro
      210              215              220
Arg Pro Gly Arg Arg Gly Arg Glu Ala Pro Ser Arg Arg Ser Arg Ser
      225              230              235
Pro Arg Thr Ser Ile Leu Asp Ala Ala Gly Ser Gly Ser Gly Ser Gly
      245              250              255
Ser Gly Ser Gly Pro
      260

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<210> 3755

<211> 3149

<212> DNA

<213> Homo sapiens

<400> 3755

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120
aacaatacct cgataaccac gccaaactctt agtcccagcc agcagccgct tccgacagaa
180
ctgaatgtaa cttcaccgag taaagaggag tgtgggccat gcacagacac agtcctatgc
240
tcattaatca caccaacaaa aagatcctgt ggtacagatt cacagtctga gaatgagggt
300
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360
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420
cagggaattgg gatcgtgtcg ctgcggttat gtgttctgta tgttacatcg cctccccgag
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600
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660
gacaaaagtc gccagacacc ttgtactggg caccgctcag actgcagcca gtccgttttc
720

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tttcttttagc cagccatcct ggtactgtag tttaggggtt gatgggtggt gaaattgatt
780
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1020
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1140
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1260
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1320
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1620
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1680
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1800
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2160
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2220
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2280
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2340

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cccagcggtt accactgctg tcaagccaca gcccttggcc accatacggg ccatacctcag
2400
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2460
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2640
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2700
ttgtgttcta gatttactta cacacatagc ctagagctca gttttagttt taacattgtg
2760
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2820
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2880
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3060
aggtgggtct gcagggccaa gcctgtgcc a gcagccagga gggtacacac tggggggggt
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3149

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<210> 3756

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3756

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Ser Glu Glu Thr Thr Ser Asp Asn Asn Asn Thr Ser Ile Thr Thr Pro
35 40 45
Thr Leu Ser Pro Ser Gln Gln Pro Leu Pro Thr Glu Leu Asn Val Thr
50 55 60
Ser Pro Ser Lys Glu Glu Cys Gly Pro Cys Thr Asp Thr Ala His Val
65 70 75 80
Ser Leu Ile Thr Pro Thr Lys Arg Ser Cys Gly Thr Asp Ser Gln Ser
85 90 95
Glu Asn Glu Ala Ser Pro Val Lys Arg Pro Arg Leu Leu Glu Asn Thr
100 105 110
Glu Arg Ser Glu Glu Thr Ser Arg Ser Lys Gln Lys Ser Arg Arg Arg
115 120 125
Cys Phe Gln Cys Gln Thr Lys Leu Glu Leu Val Gln Gln Glu Leu Gly
130 135 140
Ser Cys Arg Cys Gly Tyr Val Phe Cys Met Leu His Arg Leu Pro Glu

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145              150              155              160
Gln His Asp Cys Thr Phe Asp His Met Gly Arg Gly Arg Glu Glu Ala
              165              170              175
Ile Met Lys Met Val Lys Leu Asp Arg Lys Val Gly Arg Ser Cys Gln
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Arg Ile Gly Glu Gly Cys Ser
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<210> 3757

<211> 1046

<212> DNA

<213> Homo sapiens

<400> 3757

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180
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240
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300
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360
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<210> 3758

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3758

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 1           5           10           15
Ala Val Asp Leu Cys Gly Arg Leu Leu Thr Ala His Gly Gln Gly Tyr
      20           25           30
Gly Lys Ser Ser Gly Leu Leu Thr Ser His Thr Thr Asp Ser Leu Gln Leu
 35           40           45
Trp Phe Val Arg Leu Ala Leu Leu Val Lys Leu Gly Leu Phe Gln Asn
 50           55           60
Ala Glu Met Glu Phe Glu Pro Phe Gly Asn Leu Asp Gln Pro Asp Leu
 65           70           75           80
Tyr Ser Glu Tyr Tyr Pro His Val Tyr Pro Gly Arg Arg Gly Ser Met
      85           90           95
Val Pro Phe Ser Met Arg Ile Leu His Ala Glu Leu Gln Gln Tyr Leu
      100           105           110
Gly Asn Pro Gln Glu Ser Leu Asp Arg Leu His Lys Val Lys Thr Val
      115           120           125
Cys Ser Lys Val Gly Gly Ala Val Ile Leu Pro Cys His Gly Glu Asn
      130           135           140
Met Pro Ser Thr Pro Ser Pro Gln Asp Met Pro Val Leu Phe Pro Ala
      145           150           155           160
Arg Pro Ala Pro Cys Thr Ile Ala Ala Ser Ala Phe Arg Arg Leu Gly
      165           170           175
Asp Pro Gly Leu Cys Gly Leu Val Val Ala Leu Ala Glu Ile Phe
      180           185           190
Phe Arg Asp Gly Lys Ser Phe
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<210> 3759

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3759

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 120
agagcaaaag caggcggacg agctcctgga aaaaattgag agcatgtgtc atcagaatgg
 180
gaacaagcat tgtgttttca gagaaaaaga aacctgaac attgtccttg tggggagaga
 240
cgggactggg aagagtgcga cgggaactc tatcctgggg agcctcgtct tcacctctcg
 300
gtcccgggcc cagccagtca ccaagaccag ccagagtggc aggaggacat gggacggaca
 360
ggaggtgtgt gttgtggaca cccttccttc aaccagatgc tggatgtcaa aggacccatc
 420
ccggttaaaa gaggaggtca agcgtgtttt gtctgtctgt gaaaagggg acacattttt
 480
gtcctgggtg tccagctggg acgattcact gaagaggaca aaacagctgt ggcgaaactg
 540

```


gaggccatct ttggagcaga ctttacgaaa tacgcgatta tgctgttcac ccggaaggaa
 600
 gacctagggg cggggaattt ggaagacttc atgaagaact cagataacaa agcccttcgg
 660
 cgcattttaa aaaagtgggg ggggaggtt tgtgctttta acaacaaaga aacaggccag
 720
 gccaggaaa cccaggtgaa agctctttta acaaggtca atgatctgag aaaagaaagt
 780
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 830

<210> 3760

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3760

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Arg	Asn	Pro	Glu	His	Cys	Pro	Cys	Gly	Glu	Lys	Arg	Asp	Trp	Glu	Glu
			20					25					30		
Cys	Asp	Arg	Glu	Leu	Tyr	Pro	Gly	Glu	Pro	Arg	Leu	His	Leu	Ser	Ala
		35					40				45				
Pro	Gly	Pro	Ala	Ser	His	Gln	Asp	Gln	Pro	Glu	Trp	Gln	Glu	Asp	Met
		50				55				60					
Gly	Arg	Thr	Gly	Gly	Gly	Gly	Cys	Gly	His	Pro	Ser	Phe	Asn	Gln	Met
65					70				75					80	
Leu	Asp	Val	Lys	Gly	Pro	Ile	Pro	Val	Lys	Arg	Gly	Gly	Gln	Ala	Leu
			85					90					95		
Phe	Val	Leu	Leu												
			100												

<210> 3761

<211> 458

<212> DNA

<213> Homo sapiens

<400> 3761

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 120
 aaggggagcc gcccgccgcg agcgggaggt ggcccccgcg gacacccccg cgccccgagg
 180
 cgaggcaccg ccgaaccccc atccctgctg gcaggaccag aggtgtgagg gtggggggcg
 240
 ggaagccttg ccgcgggggc aatggtcgtg cgcacggagc gcacatecct ctccttctg
 300
 attggccgag cgggggtgtg cgtgatgcca cgctccgccc gtgctacgtg gggcgctcgc
 360
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 458

<210> 3762

<211> 75

<212> PRT

<213> Homo sapiens

<400> 3762

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Thr Arg Ala Gly Gly Thr Gln Arg Pro Gln Val Arg Thr Pro Pro Pro
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Pro Pro Thr Pro Pro Thr Pro Pro Leu Arg Ala Gly Cys Leu Ser Glu
                20             25             30
Arg Pro Pro Pro Glu Gly Leu Gly Lys Gly Gly Arg Pro Ala Ala Ala
                35             40             45
Gly Gly Gly Pro Pro Gly His Pro Gly Ala Pro Arg Arg Gly Thr Pro
                50             55             60
Glu Pro Arg Ser Leu Leu Ala Gly Pro Glu Val
65             70             75

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<210> 3763

<211> 1340

<212> DNA

<213> Homo sapiens

<400> 3763

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120
tgggcagggt cccctccac gctcctgcgc ctgtctcca cgtcccccag gtgcgcggcc
180
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240
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300
tacgacatcg ccatgaccgc ggggtggttg gttctagcta ttgccatggt acgtttttat
360
atggaaaaagg gaacacacag agggttatat aaaagtattc agaagacact taaatttttc
420
cagacatttg ccttgcttga gatagttcac tgtttaattg gaattgtacc tacttctgtg
480
attgtgactg gggccaagt gagctcaaga atctttatgg tgtggctcat tactcacagt
540
ataaaaccaa tccagaatga agagagtgtg gtgctttttc tggtcgcgtg gactgtgaca
600
gagatcacct gctattcett ctacacattc agccttcttg accacttgcc atacttcatt
660
aaatgggcca gatataattt ttttatcatt ttatatcctg ttggagttgc tgggtgaactt
720
cttacaatat acgctgcctt gccgtatgtg aagaaaaagc gaattgtttc aataagactt
780
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840
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900

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catggagagg tgattgtaga aaaggatgat taaatgatct ctgcaaacaa ggtgcttttt
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 1080
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 1200
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<210> 3764

<211> 288

<212> PRT

<213> Homo sapiens

<400> 3764

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			20					25					30		
Ser	Pro	Arg	Cys	Ala	Ala	Thr	Met	Ala	Ser	Ser	Asp	Glu	Asp	Gly	Thr
		35				40					45				
Asn	Gly	Gly	Ala	Ser	Glu	Ala	Gly	Glu	Asp	Arg	Glu	Ala	Pro	Gly	Lys
	50				55					60					
Arg	Arg	Arg	Leu	Gly	Phe	Leu	Ala	Thr	Ala	Trp	Leu	Thr	Phe	Tyr	Asp
65					70				75					80	
Ile	Ala	Met	Thr	Ala	Gly	Trp	Leu	Val	Leu	Ala	Ile	Ala	Met	Val	Arg
			85					90					95		
Phe	Tyr	Met	Glu	Lys	Gly	Thr	His	Arg	Gly	Leu	Tyr	Lys	Ser	Ile	Gln
			100					105					110		
Lys	Thr	Leu	Lys	Phe	Phe	Gln	Thr	Phe	Ala	Leu	Leu	Glu	Ile	Val	His
		115				120						125			
Cys	Leu	Ile	Gly	Ile	Val	Pro	Thr	Ser	Val	Ile	Val	Thr	Gly	Val	Gln
	130					135					140				
Val	Ser	Ser	Arg	Ile	Phe	Met	Val	Trp	Leu	Ile	Thr	His	Ser	Ile	Lys
145				150					155					160	
Pro	Ile	Gln	Asn	Glu	Ser	Val	Val	Leu	Phe	Leu	Val	Ala	Trp	Thr	
			165					170					175		
Val	Thr	Glu	Ile	Thr	Arg	Tyr	Ser	Phe	Tyr	Thr	Phe	Ser	Leu	Leu	Asp
		180						185					190		
His	Leu	Pro	Tyr	Phe	Ile	Lys	Trp	Ala	Arg	Tyr	Asn	Phe	Phe	Ile	Ile
		195				200					205				
Leu	Tyr	Pro	Val	Gly	Val	Ala	Gly	Glu	Leu	Leu	Thr	Ile	Tyr	Ala	Ala
	210					215					220				
Leu	Pro	Tyr	Val	Lys	Lys	Thr	Gly	Met	Phe	Ser	Ile	Arg	Leu	Pro	Asn
225				230						235				240	
Lys	Tyr	Asn	Val	Ser	Phe	Asp	Tyr	Tyr	Tyr	Phe	Leu	Leu	Ile	Thr	Met

	245		250		255
Ala Ser Tyr	Ile Pro Leu Phe	Pro Gln Leu Tyr Phe	His Met Leu Arg		
	260	265	270		
Gln Arg Arg	Lys Val Leu His Gly	Glu Val Ile Val	Glu Lys Asp Asp		
	275	280	285		

<210> 3765

<211> 2764

<212> DNA

<213> Homo sapiens

<400> 3765

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120
cgcgttaaca tggacctgga aaacaaagtg aagaagatgg gcttaggtca cgagcaagga
180
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240
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300
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360
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420
gttgctgcca agaagaatgt ctccatcaat acagttacct atgagtgggc tccctcgtgc
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720
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1200
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1260

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<210> 3766

<211> 464
 <212> PRT
 <213> Homo sapiens

<400> 3766

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Ser Gln Arg Ser Arg Arg Pro Ala Glu Pro Gly Arg Gly Ile Pro Asp
           20           25           30
Arg Arg Arg Arg Gly Pro Ile Gly Arg Val Asn Met Asp Leu Glu Asn
           35           40           45
Lys Val Lys Lys Met Gly Leu Gly His Glu Gln Gly Phe Gly Ala Pro
           50           55           60
Cys Leu Lys Cys Lys Glu Lys Cys Glu Gly Phe Glu Leu His Phe Trp
65           70           75           80
Arg Lys Ile Cys Arg Asn Cys Lys Cys Gly Gln Glu Glu His Asp Val
           85           90           95
Leu Leu Ser Asn Glu Glu Asp Arg Lys Val Gly Lys Leu Phe Glu Asp
           100          105          110
Thr Lys Tyr Thr Thr Leu Ile Ala Lys Leu Lys Ser Asp Gly Ile Pro
           115          120          125
Met Tyr Lys Arg Asn Val Met Ile Leu Thr Asn Pro Val Ala Ala Lys
           130          135          140
Lys Asn Val Ser Ile Asn Thr Val Thr Tyr Glu Trp Ala Pro Pro Val
145          150          155          160
Gln Asn Gln Ala Leu Ala Arg Gln Tyr Met Gln Met Leu Pro Lys Glu
           165          170          175
Lys Gln Pro Val Ala Gly Ser Glu Gly Ala Gln Tyr Arg Lys Lys Gln
           180          185          190
Leu Ala Lys Gln Leu Pro Ala His Asp Gln Asp Pro Ser Lys Cys His
           195          200          205
Glu Leu Ser Pro Arg Glu Val Lys Glu Met Glu Gln Phe Val Lys Lys
210          215          220
Tyr Lys Ser Glu Ala Leu Gly Val Gly Asp Val Lys Leu Pro Cys Glu
225          230          235          240
Met Asp Ala Gln Gly Pro Lys Gln Met Asn Ile Pro Gly Gly Asp Arg
           245          250          255
Ser Thr Pro Ala Ala Val Gly Ala Met Glu Asp Lys Ser Ala Glu His
           260          265          270
Lys Arg Thr Gln Tyr Ser Cys Tyr Cys Cys Lys Leu Ser Met Lys Glu
           275          280          285
Gly Asp Pro Ala Ile Tyr Ala Glu Arg Ala Gly Tyr Asp Lys Leu Trp
290          295          300
His Pro Ala Cys Phe Val Cys Ser Thr Cys His Glu Leu Leu Val Asp
305          310          315          320
Met Ile Tyr Phe Trp Lys Asn Glu Lys Leu Tyr Cys Gly Arg His Tyr
           325          330          335
Cys Asp Ser Glu Lys Pro Arg Cys Ala Gly Cys Asp Glu Leu Ile Phe
           340          345          350
Ser Asn Glu Tyr Thr Gln Ala Glu Asn Gln Asn Trp His Leu Lys His
           355          360          365
Phe Cys Cys Phe Asp Cys Asp Ser Ile Leu Ala Gly Glu Ile Tyr Val
370          375          380
Met Val Asn Asp Lys Pro Val Cys Lys Pro Cys Tyr Val Lys Asn His

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385		390		395		400									
Ala	Val	Val	Cys	Gln	Gly	Cys	His	Asn	Ala	Ile	Asp	Pro	Glu	Val	Gln
			405					410						415	
Arg	Val	Thr	Tyr	Asn	Asn	Phe	Ser	Trp	His	Ala	Ser	Thr	Glu	Cys	Phe
			420					425					430		
Leu	Cys	Ser	Cys	Cys	Ser	Lys	Cys	Leu	Ile	Gly	Gln	Lys	Phe	Met	Pro
			435				440					445			
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<210> 3767

<211> 2439

<212> DNA

<213> Homo sapiens

<400> 3767

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1020
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1080
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1140

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 1200
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 1260
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<210> 3768

<211> 379

<212> PRT

<213> Homo sapiens

<400> 3768

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		260						265				270							
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Glu	Ile	Leu	Arg	Met	Asp	Pro	Arg	Asn	Ala	Val	Ala	Asn	Asn	Asn	Ala				
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Ala	Val	Cys	Leu	Leu	Tyr	Leu	Gly	Lys	Leu	Lys	Asp	Ser	Leu	Arg	Gln				
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<210> 3769

<211> 1931

<212> DNA

<213> Homo sapiens

<400> 3769

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<210> 3770

<211> 447

<212> PRT

<213> Homo sapiens

<400> 3770

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Val	Lys	Thr	Asp	Trp	Asn	Glu	Glu	Cys	Lys	Ser	Pro	Lys	Lys	Gly	Arg
	35					40						45			
Cys	Ser	Gly	His	Asn	His	Val	Pro	Asn	Ser	Leu	Ser	Tyr	Ala	Arg	Asp
	50				55						60				
Glu	Leu	Thr	Gln	Ser	Phe	His	Arg	Leu	Ser	Val	Cys	Val	Tyr	Gly	Asn
65			70						75					80	
Asn	Leu	His	Gly	Asn	Ser	Glu	Val	Asn	Leu	His	Gly	Cys	Arg	Asp	Leu
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Gly	Gly	Asp	Trp	Ala	Pro	Phe	Pro	His	Asp	Ile	Leu	Pro	Tyr	Gln	Asp
		100					105					110			
Ser	Gly	Asp	Ser	Gly	Ser	Asp	Tyr	Leu	Phe	Pro	Glu	Ala	Ser	Glu	Glu
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Ser	Ala	Gly	Ile	Pro	Gly	Lys	Ser	Glu	Leu	Pro	Tyr	Glu	Glu	Leu	Trp
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Glu	Lys	Asn	Arg	Cys	Asp	Gln	Phe	Arg	Gly	Ser	Val	Arg	Ser	Lys	Cys
		165						170					175		
Ala	Thr	Ser	Pro	Leu	Pro	Ile	Pro	Gly	Thr	Leu	Gly	Ala	Ala	Val	Lys
	180						185						190		
Ser	Ser	Asp	Thr	Ala	Leu	Pro	Pro	Pro	Pro	Val	Pro	Pro	Lys	Ser	Glu
	195					200						205			
Ala	Val	Arg	Glu	Glu	Cys	Arg	Leu	Leu	Asn	Ala	Pro	Pro	Val	Pro	Pro
	210				215						220				
Arg	Ser	Ala	Lys	Pro	Leu	Ser	Thr	Ser	Pro	Ser	Ile	Pro	Pro	Arg	Thr
225			230						235					240	
Val	Lys	Pro	Ala	Arg	Gln	Gln	Thr	Arg	Ser	Pro	Ser	Pro	Thr	Leu	Ser
		245						250						255	
Tyr	Tyr	Ser	Ser	Gly	Leu	His	Asn	Ile	Val	Thr	Lys	Thr	Asp	Thr	Asn
	260					265						270			
Pro	Ser	Glu	Ser	Thr	Pro	Val	Ser	Cys	Tyr	Pro	Cys	Asn	Arg	Val	Lys
	275					280						285			
Thr	Asp	Ser	Val	Asp	Leu	Lys	Ser	Pro	Phe	Gly	Ser	Pro	Ser	Ala	Glu

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Ala Val Ser Ser Arg Leu Ser Trp Pro Asn His Tyr Ser Gly Ala Ser				
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Glu Ser Gln Thr Arg Ser Asp Phe Leu Leu Asp Pro Ser Arg Ser Tyr				
	325	330	335	
Ser Tyr Pro Arg Gln Lys Thr Pro Gly Thr Pro Lys Arg Asn Cys Pro				
	340	345	350	
Ala Pro Phe Asp Phe Asp Gly Cys Glu Leu Leu Ala Ser Pro Thr Ser				
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Pro Val Thr Ala Glu Phe Ser Ser Val Ser Gly Cys Pro Lys Ser				
	370	375	380	
Ala Ser Tyr Ser Leu Glu Ser Thr Asp Val Lys Ser Leu Ala Ala Gly				
	385	390	395	400
Val Thr Lys Gln Ser Thr Ser Cys Pro Ala Leu Pro Pro Arg Ala Pro				
	405	410	415	
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<210> 3771

<211> 1514

<212> DNA

<213> Homo sapiens

<400> 3771

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<210> 3772

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3772

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			20					25					30		
Thr	Leu	Gln	His	Trp	Pro	His	Ile	Ile	Arg	Ile	Gly	Asp	Leu	Lys	Pro
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Thr	Ser	Glu	Ile	Pro	Lys	Gln	Val	Lys	Val	Lys	Lys	Leu	Lys	Asn	Leu
		50				55					60				
Lys	Thr	Leu	Asp	Ser	Lys	Pro	Gly	Val	Tyr	Thr	Ser	Tyr	Lys	Pro	Tyr
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Leu	Asn	Arg	Asp	Glu	Glu	Ile	Ile	Lys	Gln	Leu	Gln	Lys	Gly	Val	Gln
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Gln	Lys	Arg	Pro	Ser	Glu	Ala	Gln	Ser	Val	Ile	Leu	Arg	Arg	Tyr	Phe
			100					105					110		
Leu	Glu	Leu	Thr	Gln	Ser	Phe	Ile	Ile	Pro	Leu	Glu	Arg	Tyr	Val	Ala
		115				120						125			
Ser	Leu	Met	Pro	Leu	Gln	Lys	Ser	Ile	Ser	Pro	Trp	Lys	Ser	Pro	Pro
		130				135					140				
Gln	Leu	Arg	Gln	Phe	Leu	Pro	Glu	Glu	Phe	Met	Lys	Thr	Leu	Glu	Lys
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Tyr	Arg	His	Phe	Leu	Lys	Ser	Pro	Asn	Phe	Asp	Gly	Trp	Phe	Lys	Thr

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Arg	Arg	Lys	Glu	Met	Thr
	195		200		205
Leu	Cys	Glu	Glu	Asp	Leu
	210		215		220
Glu	Thr	Val	Asp	Leu	Val
	225		230		235
Asp	Arg	Glu	His	Leu	Pro
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Thr	His	Ile	Asp	Ala	Ile
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<210> 3773

<211> 2664

<212> DNA

<213> Homo sapiens

<400> 3773

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<210> 3774

<211> 678

<212> PRT

<213> Homo sapiens

<400> 3774

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Val	Arg	Pro	Ala	Gly	Pro	Pro	Asn	Ala	Gly	Ser	Met	Ser	Ala	Gly
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Glu	Arg	Gly	Ala	Ala	Ala	Thr	Pro	Gly	Gly	Leu	Pro	Ala	Pro	Cys
	50					55					60			
Ser	Lys	Val	Glu	Leu	Arg	Leu	Ser	Cys	Arg	His	Leu	Leu	Asp	Arg
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Pro	Leu	Thr	Lys	Ser	Asp	Pro	Ser	Val	Ala	Leu	Leu	Gln	Gln	Ala
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Gly	Gln	Trp	Val	Gln	Val	Gly	Arg	Thr	Glu	Val	Val	Arg	Ser	Ser
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Leu	Phe	Ser	Lys	Ser	Asp	Pro	Phe	Leu	Glu	Leu	Tyr	Arg	Val	Asn
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Ser	Cys	Asp	Val	His	Arg	Pro	Leu	Lys	Phe	Leu	Val	Trp	Asp	Tyr
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<212> DNA

<213> Homo sapiens

<400> 3775

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<213> Homo sapiens

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Glu	Gly	Leu	Glu	Glu	Ser	Pro	Asn	Gly	Pro	Lys	Met	Gly	Leu	Leu	Met
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<212> DNA

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 <212> PRT
 <213> Homo sapiens

<400> 3778

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Thr Glu Lys Thr Glu Asp Ser Ser Val Pro Glu Thr Pro Asp Asn Glu
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Arg Lys Ala Ser Ile Ser Tyr Phe Lys Asn Gln Arg Gly Ile Gln Tyr
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Ile Asp Leu Ser Ser Asp Ser Glu Asp Val Val Ser Pro Asn Cys Ser
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<212> PRT

<213> Homo sapiens

<400> 3780

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<212> DNA

<213> Homo sapiens

<400> 3781

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<213> Homo sapiens

<400> 3784

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<210> 3786

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3786

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			20					25					30		
Thr	Glu	Met	Ser	Leu	His	Ala	Leu	Tyr	Met	His	Gln	Leu	His	Lys	Gln
		35				40						45			
Gln	Ala	Gln	Ala	Glu	Pro	Glu	Arg	His	Val	Trp	His	Arg	Arg	Glu	Ser
		50				55				60					
Asp	Glu	Ser	Gly	Glu	Ser	Ala	Pro	Asp	Glu	Gly	Gly	Glu	Gly	Ala	Arg
				70					75					80	
Ala	Pro	Gln	Ser	Ile	Pro	Arg	Ser	Ala	Ser	Tyr	Pro	Cys	Ala	Ala	Pro
				85					90					95	
Arg	Pro	Gly	Ala	Pro	Glu	Thr	Thr	Ala	Leu	His	Gly	Gly	Phe	Gln	Arg

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          100              105              110
Arg Tyr Gly Gly Ile Thr Asp Pro Gly Thr Val Pro Arg Val Pro Ser
      115              120              125
His Phe Ser Arg Leu Pro Leu Gly Gly Trp Ala Glu Asp Gly Gln Ser
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<210> 3787

<211> 717

<212> DNA

<213> Homo sapiens

<400> 3787

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<210> 3788

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3788

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      20              25              30
Pro Trp Gly Ala Lys Cys Ser Trp Arg Gln Val Ala Lys Gly Glu His
      35              40              45
Leu Gly Gln Thr Pro Gly Phe Ser Ser Arg Leu Pro His Leu Pro Ala

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65				70						75					80
Ala	Ala	Val	Ile	Thr	His	Glu	Gln	Cys	Leu	Ala	Gln	Ser	Gly	Arg	Ser
			85						90					95	
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<210> 3789

<211> 4341

<212> DNA

<213> Homo sapiens

<400> 3789

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<210> 3790

<211> 1092

<212> PRT

<213> Homo sapiens

<400> 3790

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Leu Gln Val Leu Lys Ala Gln Ser Glu Asp Pro Leu Pro Glu Leu His
 35          40          45
Glu Asp Leu His Asn Glu Lys Glu Leu Ile Lys Glu Leu Glu Gln Ser
 50          55          60
Leu Ala Ser Trp Thr Gln Asn Leu Lys Glu Leu Gln Thr Met Lys Ala
 65          70          75          80
Asp Leu Thr Arg His Val Leu Val Glu Asp Val Met Val Leu Lys Glu
 85          90          95
Gln Ile Glu His Leu His Arg Gln Trp Glu Asp Leu Cys Leu Arg Val
100          105          110
Ala Ile Arg Lys Gln Glu Ile Glu Asp Arg Leu Asn Thr Trp Val Val
115          120          125
Phe Asn Glu Lys Asn Lys Glu Leu Cys Ala Trp Leu Val Gln Met Glu
130          135          140
Asn Lys Val Leu Gln Thr Val Asp Ile Ser Ile Glu Glu Met Ile Glu
145          150          155          160
Lys Leu Gln Lys Asp Cys Met Glu Glu Ile Asn Leu Phe Ser Glu Asn
165          170          175
Lys Leu Gln Leu Lys Gln Met Gly Asp Gln Leu Ile Lys Ala Ser Asn
180          185          190
Lys Ser Arg Ala Ala Glu Ile Asp Asp Lys Leu Asn Lys Ile Asn Asp
195          200          205
Arg Trp Gln His Leu Phe Asp Val Ile Gly Ser Arg Val Lys Lys Leu
210          215          220
Lys Glu Thr Phe Ala Phe Ile Gln Gln Leu Asp Lys Asn Met Ser Asn
225          230          235          240
Leu Arg Thr Trp Leu Ala Arg Ile Glu Ser Glu Leu Ser Lys Pro Val
245          250          255
Val Tyr Asp Val Cys Asp Asp Gln Glu Ile Gln Lys Arg Leu Ala Glu
260          265          270
Gln Gln Asp Leu Gln Arg Asp Ile Glu Gln His Ser Ala Gly Val Glu
275          280          285
Ser Val Phe Asn Ile Cys Asp Val Leu Leu His Asp Ser Asp Ala Cys
290          295          300
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305          310          315          320
Asp Arg Arg Trp Arg Asn Ile Cys Ala Met Ser Met Glu Arg Arg Met
325          330          335
Lys Ile Glu Glu Thr Trp Arg Leu Trp Gln Lys Phe Leu Asp Asp Tyr
340          345          350
Ser Arg Phe Glu Asp Trp Leu Lys Ser Ala Glu Arg Thr Ala Ala Cys
355          360          365
Pro Asn Ser Ser Glu Val Leu Tyr Thr Ser Ala Lys Glu Glu Leu Lys

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Asp	Thr	Ala	Ser	Arg	Leu	Lys	Gln	Met	Val	His	Glu	Gly	Asn	Gln	Arg
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Trp	Asp	Asn	Leu	Gln	Arg	Arg	Val	Thr	Ala	Val	Leu	Arg	Arg	Leu	Arg
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His	Phe	Thr	Asn	Gln	Arg	Glu	Glu	Phe	Glu	Gly	Thr	Arg	Glu	Ser	Il
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Phe	Ser	Glu	Ser	Asp	Ala	Asp	Asp	Lys	Met	Arg	Gln	Leu	Asn	Gly	Phe
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Gln	Gln	Glu	Ile	Thr	Leu	Asn	Thr	Asn	Lys	Ile	Asp	Gln	Leu	Ile	Val
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Ile	Glu	Asp	Glu	Leu	Glu	Glu	Leu	His	Arg	Tyr	Cys	Gln	Glu	Val	Phe
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Gly	Arg	Val	Ser	Arg	Phe	His	Arg	Arg	Leu	Thr	Ser	Cys	Thr	Pro	Gly
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Leu	Glu	Asp	Glu	Lys	Glu	Ala	Ser	Glu	Asn	Glu	Thr	Asp	Met	Glu	Asp
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Pro	Arg	Glu	Ile	Gln	Thr	Asp	Ser	Trp	Arg	Lys	Arg	Gly	Glu	Ser	Glu
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Pro	Gln	Gln	Glu	Asp	Gly	Gly	Leu	Ala	Gly	Ile	Thr	Glu	Gln	Gln	Ser
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      820                      825                      830
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Trp Glu Ala Ala Gln Gly Ala Val Asp Ser Trp Arg Gly Leu Arg
      850                      855                      860
Gln Ser Leu Met Gln Cys Gln Asp Phe His Gln Leu Ser Gln Asn Leu
      865                      870                      875                      880
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      885                      890                      895
Thr Asp Pro Lys Ala Asp Pro Arg Ala Leu Leu Glu Cys Arg Arg Glu
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Leu Met Gln Leu Glu Lys Glu Leu Val Glu Arg Gln Pro Gln Val Asp
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Met Leu Gln Glu Ile Ser Asn Ser Leu Leu Ile Lys Gly His Gly Glu
      930                      935                      940
Asp Cys Ile Glu Ala Glu Glu Lys Val His Val Ile Glu Lys Lys Leu
      945                      950                      955                      960
Lys Gln Leu Arg Glu Gln Val Ser Gln Asp Leu Met Ala Leu Gln Gly
      965                      970                      975
Thr Gln Asn Pro Ala Ser Pro Leu Pro Ser Phe Asp Glu Val Asp Ser
      980                      985                      990
Gly Asp Gln Pro Pro Ala Thr Ser Val Pro Ala Pro Arg Ala Lys Gln
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Phe Arg Ala Val Arg Thr Thr Glu Gly Glu Glu Glu Thr Glu Ser Arg
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Val Pro Gly Ser Thr Arg Pro Gln Arg Ser Phe Leu Ser Arg Val Val
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Arg Ala Ala Leu Pro Leu Gln Leu Leu Leu Leu Leu Leu Leu Leu
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Ala Cys Leu Leu Pro Ser Ser Glu Glu Asp Tyr Ser Cys Thr Gln Ala
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<210> 3791

<211> 1011

<212> DNA

<213> Homo sapiens

<400> 3791

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<210> 3792

<211> 288

<212> PRT

<213> Homo sapiens

<400> 3792

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Phe	Leu	Cys	Ser	Gly	Gly	His	Asn	Ala	Leu	Phe	Glu	Thr	Phe	Asn	Trp
			20				25						30		
Ala	Leu	Ser	Met	Gly	Gly	Lys	Val	Pro	Val	Ser	Glu	Gly	Leu	Glu	His
			35				40					45			
Ser	Asp	Leu	Pro	Asp	Gly	Thr	Gly	Glu	Phe	Leu	Asp	Ala	Trp	Leu	Met
			50			55					60				
Leu	Val	Glu	Lys	Met	Val	Asn	Pro	Thr	Thr	Val	Leu	Glu	Ser	Pro	His
					70					75				80	
Ser	Leu	Pro	Ala	Lys	Leu	Pro	Gly	Gly	Val	Gln	Asn	Phe	Pro	Gln	Phe
			85						90					95	
Ser	Ala	Leu	Arg	Phe	Leu	Val	Val	Thr	Gln	Lys	Ala	Ala	Phe	Thr	Cys
			100					105					110		
Ile	Lys	Asn	Leu	Trp	Asn	Arg	Lys	Pro	Leu	Lys	Val	Tyr	Gly	Gly	Arg
			115			120						125			
Met	Ala	Glu	Ser	Met	Leu	Ala	Ile	Leu	Cys	His	Ile	Leu	Arg	Gly	Glu
			130			135					140				
Pro	Val	Ile	Arg	Glu	Arg	Leu	Ser	Lys	Glu	Lys	Glu	Gly	Ser	Arg	Gly
				150					155					160	
Glu	Glu	Asp	Thr	Gly	Gln	Glu	Glu	Gly	Gly	Ser	Arg	Arg	Glu	Pro	Gln
				165					170					175	
Val	Asn	Gln	Gln	Gln	Leu	Gln	Gln	Leu	Met	Asp	Met	Gly	Phe	Thr	Arg

```

      180              185              190
Glu His Ala Met Glu Ala Leu Leu Asn Thr Ser Thr Met Glu Gln Ala
      195              200              205
Thr Glu Tyr Leu Leu Thr His Pro Pro Pro Ile Met Gly Gly Val Val
      210              215              220
Arg Asp Leu Ser Met Ser Glu Glu Asp Gln Met Met Arg Ala Ile Ala
      225              230              235              240
Met Ser Leu Gly Gln Asp Ile Pro Met Asp Gln Arg Ala Glu Ser Pro
      245              250              255
Glu Glu Val Ala Cys Arg Lys Glu Glu Glu Arg Lys Ala Arg Glu
      260              265              270
Lys Gln Glu Glu Glu Glu Ala Lys Cys Leu Lys Lys Val Gln Gly Cys
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<210> 3793

<211> 360

<212> DNA

<213> Homo sapiens

<400> 3793

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120
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240
ctcaagagat tctcctgcct cagcctccca agtagctggg attacaggca tgcataacca
300
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<210> 3794

<211> 96

<212> PRT

<213> Homo sapiens

<400> 3794

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      20      25      30
Phe Val Pro Gly Arg Asn Asn Ser Phe Phe Phe Ser Trp Arg Gln Cys
      35      40      45
Phe Thr Leu Val Ala Gln Ala Gly Gly Gln Trp Arg Asp Leu Ser Ser
      50      55      60
Leu Gln Pro Pro Pro Phe Gly Leu Lys Arg Phe Ser Cys Leu Ser Leu
      65      70      75      80
Pro Ser Ser Trp Asp Tyr Arg His Ala Ser Pro Cys Thr Met Pro Asp
      85      90      95

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<210> 3795

<211> 1341

<212> DNA

<213> Homo sapiens

<400> 3795

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120
gagctgcagg cctgtgctga tgtcgtggat cgagaacgct tctgcgctg ggcgggccta
180
cctcgacagg gctttcccat catctttcac ggcgtaatgg gcaaagatga gcgtgaaggc
240
aacagcccat ccttcttcaa ccctgaagag gctgccacag tgacttccta cctgaagctg
300
ctcctggccc cctctccaa gaagggcaaa gcccgctga gccctcgaag tgtgggcgtc
360
atctccccgt accggaaaca ggtggagaaa atccgttact gcataccaa acttgacagg
420
gagcttcgag gactggatga catcaaggac ttgaaggtag gttcagtaga agaattccaa
480
ggccaagaac gaagcgtcat cctcatctcc accgtgcgaa gcagccagag ctttgtgcag
540
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600
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660
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720
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<210> 3796

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3796

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          20           25           30
Pro Asn Gln Leu Tyr Tyr Glu Gly Leu Gln Ala Cys Ala Asp Val
          35           40           45
Val Asp Arg Glu Arg Phe Cys Arg Trp Ala Gly Leu Pro Arg Gln Gly
          50           55           60
Phe Pro Ile Ile Phe His Gly Val Met Gly Lys Asp Glu Arg Glu Gly
          65           70           75           80
Asn Ser Pro Ser Phe Phe Asn Pro Glu Glu Ala Ala Thr Val Thr Ser
          85           90           95
Tyr Leu Lys Leu Leu Ala Pro Ser Ser Lys Lys Gly Lys Ala Arg
          100          105          110
Leu Ser Pro Arg Ser Val Gly Val Ile Ser Pro Tyr Arg Lys Gln Val
          115          120          125
Glu Lys Ile Arg Tyr Cys Ile Thr Lys Leu Asp Arg Glu Leu Arg Gly
          130          135          140
Leu Asp Asp Ile Lys Asp Leu Lys Val Gly Ser Val Glu Glu Phe Gln
          145          150          155          160
Gly Gln Glu Arg Ser Val Ile Leu Ile Ser Thr Val Arg Ser Ser Gln
          165          170          175
Ser Phe Val Gln Leu Asp Leu Asp Phe Asn Leu Gly Phe Leu Lys Asn
          180          185          190
Pro Lys Arg Phe Asn Val Ala Val Thr Arg Ala Lys Ala Leu Leu Ile
          195          200          205
Ile Val Gly Asn Pro Leu Leu Leu Gly His Asp Pro Asp Trp Lys Val
          210          215          220
Phe Leu Glu Phe Cys Lys Glu Asn Gly Gly Tyr Thr Gly Cys Pro Phe
          225          230          235          240
Pro Ala Lys Leu Asp Leu Gln Gln Gly Gln Asn Leu Leu Gln Gly Leu
          245          250          255
Ser Lys Leu Ser Pro Ser Thr Ser Gly Pro His Ser His Asp Tyr Leu
          260          265          270
Pro Gln Glu Arg Glu Gly Glu Gly Gly Leu Ser Leu Gln Val Glu Pro
          275          280          285
Glu Trp Arg Asn Glu Leu
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<210> 3797

<211> 1970

<212> DNA

<213> Homo sapiens

<400> 3797

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 120
ggggtgttgc tgcgctacga ctctgaggcc gacgcccact ggtggtcaga gaggacgcac
 180

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aagaacttga gcgacatgga gaacgaattc tactatcgct acccaagctt ccaggacgtg
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480
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600
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660
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780
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 1860
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 1920
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 1970

<210> 3798

<211> 473

<212> PRT

<213> Homo sapiens

<400> 3798

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Val	Ile	Leu	Phe	Gly	Val	Phe	Val	Arg	Tyr	Asp	Phe	Glu	Ala	Asp	Ala
		20						25					30		
His	Trp	Trp	Ser	Glu	Arg	Thr	His	Lys	Asn	Leu	Ser	Asp	Met	Glu	Asn
		35						40				45			
Glu	Phe	Tyr	Tyr	Arg	Tyr	Pro	Ser	Phe	Gln	Asp	Val	His	Val	Met	Val
		50				55					60				
Phe	Val	Gly	Phe	Gly	Phe	Leu	Met	Thr	Phe	Leu	Gln	Arg	Tyr	Gly	Phe
65					70					75				80	
Ser	Ala	Val	Gly	Phe	Asn	Phe	Leu	Leu	Ala	Ala	Phe	Gly	Ile	Gln	Trp
			85					90						95	
Ala	Leu	Leu	Met	Gln	Gly	Trp	Phe	His	Phe	Leu	Gln	Asp	Arg	Tyr	Ile
			100					105						110	
Val	Val	Gly	Val	Glu	Asn	Leu	Ile	Asn	Ala	Asp	Phe	Cys	Val	Ala	Ser
		115				120						125			
Val	Cys	Val	Ala	Phe	Gly	Ala	Val	Leu	Gly	Lys	Val	Ser	Pro	Ile	Gln
		130				135					140				
Leu	Leu	Ile	Met	Thr	Phe	Phe	Gln	Val	Thr	Leu	Phe	Ala	Val	Asn	Glu
145					150					155				160	
Phe	Ile	Leu	Leu	Asn	Leu	Leu	Lys	Val	Lys	Asp	Ala	Gly	Gly	Ser	Met
			165					170						175	
Thr	Ile	His	Thr	Phe	Gly	Ala	Tyr	Phe	Gly	Leu	Thr	Val	Thr	Arg	Ile
		180						185					190		
Leu	Tyr	Arg	Arg	Asn	Leu	Glu	Gln	Ser	Lys	Glu	Arg	Gln	Asn	Ser	Val
		195					200					205			
Tyr	Gln	Ser	Asp	Leu	Phe	Ala	Met	Ile	Gly	Thr	Leu	Phe	Leu	Trp	Met
		210				215					220				
Tyr	Trp	Pro	Ser	Phe	Asn	Ser	Ala	Ile	Ser	Tyr	His	Gly	Asp	Ser	Gln
225					230					235				240	
His	Arg	Ala	Ala	Ile	Asn	Thr	Tyr	Cys	Ser	Leu	Ala	Ala	Cys	Val	Leu
			245						250					255	
Thr	Ser	Val	Ala	Ile	Ser	Ser	Ala	Leu	His	Lys	Lys	Gly	Lys	Leu	Asp
			260				265						270		
Met	Val	His	Ile	Gln	Asn	Ala	Thr	Leu	Ala	Gly	Gly	Val	Ala	Val	Gly
		275					280						285		
Thr	Ala	Ala	Glu	Met	Met	Leu	Met	Pro	Tyr	Gly	Ala	Leu	Ile	Ile	Gly
		290				295					300				
Phe	Val	Cys	Gly	Ile	Ile	Ser	Thr	Leu	Gly	Phe	Val	Tyr	Leu	Thr	Pro
305					310					315				320	
Phe	Leu	Glu	Ser	Arg	Leu	His	Ile	Gln	Asp	Thr	Cys	Gly	Ile	Asn	Asn

```

          325                      330                      335
Leu His Gly Ile Pro Gly Ile Ile Gly Ile Val Gly Ala Val Thr
          340                      345                      350
Ala Ala Ser Ala Ser Leu Glu Val Tyr Gly Lys Glu Gly Leu Val His
          355                      360                      365
Ser Phe Asp Phe Gln Gly Phe Asn Gly Asp Trp Thr Ala Arg Thr Gln
          370                      375                      380
Gly Lys Phe Gln Ile Tyr Gly Leu Leu Val Thr Leu Ala Met Ala Leu
          385                      390                      395
Met Gly Gly Ile Ile Val Gly Leu Ile Leu Arg Leu Pro Phe Trp Gly
          405                      410                      415
Gln Pro Ser Asp Glu Asn Cys Phe Glu Asp Ala Val Tyr Trp Glu Met
          420                      425                      430
Pro Glu Gly Asn Ser Thr Val Tyr Ile Pro Glu Asp Pro Thr Phe Lys
          435                      440                      445
Pro Ser Gly Pro Ser Val Pro Ser Val Pro Met Val Ser Pro Leu Pro
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Met Ala Ser Ser Val Pro Leu Val Pro
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<210> 3799

<211> 210

<212> DNA

<213> Homo sapiens

<400> 3799

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120
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cgggggaagt acaaggacaa gaggaggaag
210

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<210> 3800

<211> 70

<212> PRT

<213> Homo sapiens

<400> 3800

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Ile Thr Glu Arg Ser Lys Gln Lys Ala Arg Arg Arg Thr Arg Ser Ser
20          25          30
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
35          40          45
Ser Ser Ser Ser Ser Ser Ser Asp Gly Arg Lys Lys Arg Gly Lys Tyr
50          55          60
Lys Asp Lys Arg Arg Lys
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<210> 3801

<211> 4070

<212> DNA

<213> Homo sapiens

<400> 3801

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 3840
 gtgagatgc agaggcctcc gctgagccag ggcgcctgcc accccgtgga agagtgggaa
 3900
 cctcttagca ggagcctagg gccccataac tcgaagccct ttgagcctca gctccagtag
 3960
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 4020
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<210> 3802

<211> 476

<212> PRT

<213> Homo sapiens

<400> 3802

Met	Ala	Ile	Lys	Phe	Leu	Glu	Val	Ile	Lys	Pro	Phe	Cys	Val	Ile	Leu
1				5					10				15		
Pro	Glu	Ile	Gln	Lys	Pro	Glu	Arg	Lys	Ile	Gln	Phe	Lys	Glu	Lys	Val
		20						25					30		
Leu	Trp	Thr	Ala	Ile	Thr	Leu	Phe	Ile	Phe	Leu	Val	Cys	Cys	Gln	Ile
		35					40					45			
Pro	Leu	Phe	Gly	Ile	Met	Ser	Ser	Asp	Ser	Ala	Asp	Pro	Phe	Tyr	Trp
	50					55					60				
Met	Arg	Val	Ile	Leu	Ala	Ser	Asn	Arg	Gly	Thr	Leu	Met	Glu	Leu	Gly
	65				70					75				80	
Ile	Ser	Pro	Ile	Val	Thr	Ser	Gly	Leu	Ile	Met	Gln	Leu	Leu	Ala	Gly
			85						90					95	
Ala	Lys	Ile	Ile	Glu	Val	Gly	Asp	Thr	Pro	Lys	Asp	Arg	Ala	Leu	Phe
		100					105						110		
Asn	Gly	Ala	Gln	Lys	Leu	Phe	Gly	Met	Ile	Ile	Thr	Ile	Gly	Gln	Ser

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      115              120              125
Ile Val Tyr Val Met Thr Gly Met Tyr Gly Asp Pro Ser Glu Met Gly
  130              135              140
Ala Gly Ile Cys Leu Leu Ile Ile Ile Gln Leu Phe Val Ala Gly Leu
  145              150              155
Ile Val Leu Leu Leu Asp Glu Leu Leu Gln Lys Gly Tyr Gly Leu Gly
      165              170              175
Ser Gly Ile Ser Leu Phe Ile Ala Thr Asn Ile Cys Glu Thr Ile Val
      180              185              190
Trp Lys Ala Phe Ser Pro Thr Thr Ile Asn Thr Gly Arg Gly Thr Glu
      195              200              205
Phe Glu Gly Ala Val Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr
      210              215              220
Asp Lys Val Arg Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro
  225              230              235
Asn Leu Met Asn Leu Ile Ala Thr Ile Phe Val Phe Ala Val Val Ile
      245              250              255
Tyr Phe Gln Gly Phe Arg Val Asp Leu Pro Ile Lys Ser Ala Arg Tyr
      260              265              270
Arg Gly Gln Tyr Asn Thr Tyr Pro Ile Lys Leu Phe Tyr Thr Ser Asn
      275              280              285
Ile Pro Ile Ile Leu Gln Ser Ala Leu Val Ser Asn Leu Tyr Val Ile
      290              295              300
Ser Gln Met Leu Ser Ala Arg Phe Ser Gly Asn Phe Leu Val Asn Leu
  305              310              315
Leu Gly Gln Trp Ser Asp Thr Ser Ser Gly Gly Pro Ala Arg Ala Tyr
      325              330              335
Pro Val Gly Gly Leu Cys Tyr Tyr Leu Ser Pro Pro Glu Ser Phe Gly
      340              345              350
Ser Val Leu Glu Asp Pro Val His Ala Val Val Tyr Ile Val Phe Met
      355              360              365
Leu Gly Ser Cys Ala Phe Phe Ser Lys Thr Trp Ile Glu Val Ser Gly
      370              375              380
Ser Ser Ala Lys Asp Val Ala Lys Gln Leu Lys Glu Gln Gln Met Val
  385              390              395
Met Arg Gly His Arg Glu Thr Ser Met Val His Glu Leu Asn Arg Tyr
      405              410              415
Ile Pro Thr Ala Ala Ala Phe Gly Gly Leu Cys Ile Gly Ala Leu Ser
      420              425              430
Val Leu Ala Asp Phe Leu Gly Ala Ile Gly Ser Gly Thr Gly Ile Leu
      435              440              445
Leu Ala Val Thr Ile Ile Tyr Gln Tyr Phe Glu Ile Phe Val Lys Glu
      450              455              460
Gln Ser Glu Val Gly Ser Met Gly Ala Leu Leu Phe
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<210> 3803

<211> 345

<212> DNA

<213> Homo sapiens

<400> 3803

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 120
 aaatatgccc acttgagtga tgagcttcac gtattaattg aagtgtttgc tccacctggg
 180
 gaagcttatt cacgtatgag tcatgcattg gaagagatta aaaaattcct ggttctcgac
 240
 tacaatgatg aaattcgtca ggaacaacta cgtgaattat cttacttaaa tggctcagag
 300
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 345

<210> 3804

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3804

Pro Arg Gly Asn Ser Leu Lys Arg Leu Gln Glu Glu Thr Gly Ala Lys
 1 5 10 15
 Met Ser Ile Leu Gly Lys Gly Ser Met Arg Asp Lys Ala Lys Glu Glu
 20 25 30
 Glu Leu Arg Lys Ser Gly Glu Ala Lys Tyr Ala His Leu Ser Asp Glu
 35 40 45
 Leu His Val Leu Ile Glu Val Phe Ala Pro Pro Gly Glu Ala Tyr Ser
 50 55 60
 Arg Met Ser His Ala Leu Glu Glu Ile Lys Lys Phe Leu Val Pro Asp
 65 70 75 80
 Tyr Asn Asp Glu Ile Arg Gln Glu Gln Leu Arg Glu Leu Ser Tyr Leu
 85 90 95
 Asn Gly Ser Glu Asp Ser Gly Arg Gly Arg Gly Ile Arg Gly Arg Gly
 100 105 110
 Ile Arg Ile
 115

<210> 3805

<211> 1923

<212> DNA

<213> Homo sapiens

<400> 3805

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 120
 aagagcccggt tgcctaccag atgccaggcc ctgtgcttcc tctctgccttt gaggtttttg
 180
 cttgtgatca accaggaggg aaacatgggt actgctcgcc aggaacctcg cctggtcctg
 240
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 300
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 360
 gagatagagg gcaggggactg tggcgaggcc gccgcccagt ggataaccag ctctctgaag
 420

tcacagccct accgctcgtt gcacttcgag cctcacatgc gaccgagacg tcctcatcaa
480
atagcagact tgttccgacc caaggaccag attgcttact cagacaccag cccattcttg
540
atcctttctg aggcgtcgtt ggcggatctc aactccaggc tagagaagaa agttaagca
600
accaacttca ggcccaatat tgtaatttca ggatgcgatg tctatgcaga ggattctctg
660
gatgagcttc ttattggtga cgtggaactg aaaaggggtga tggctgtgtc cagatgcatt
720
ttaaccacag tggaccaga caccggtgtc atgagcagga aggaaccgct ggaaacactg
780
aagagttatc gccagtgtga ccttcagaa cgaaagtat atggaaaac accactcttt
840
gggcagtatt ttgtgctgga aaacccaggg accatcaaag tgggagacc tgtgtacctg
900
ctggggcagt aatgggaacc gtatgtcctg gaattattga tgccttttaa aaatgttctc
960
aaaaatgaca acacttgaag catggtgttt cagaactgag acctctacat tttctttaaa
1020
tttgtgattt tcacattttt cgtcttttgg acttctggtg tctcaatgct tcaatgtccc
1080
agtgcaaaaa gttaaagaat atagtctcaa taacttagta ggacttcagt aagtcactta
1140
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1200
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1260
agaaagagaa gaagagaaag aggaagagtg ggtgggctgg aagaatgtcc tagaatgtgt
1320
tattgcccc gtcatgagg tacgcaatga aaattaaatt gcaccccaaa tatggctgga
1380
atgccacttc ctttttcttc tcaagccccc ggctagcttt tgaatggga taaagactga
1440
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1560
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1620
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1740
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1800
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1920
aaa
1923

<210> 3806

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3806

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 20          25          30
Pro Leu Arg Phe Trp Leu Val Ile Asn Gln Glu Gly Asn Met Val Thr
 35          40          45
Ala Arg Gln Glu Pro Arg Leu Val Leu Ile Ser Leu Thr Cys Asp Gly
 50          55          60
Asp Thr Leu Thr Leu Ser Ala Ala Tyr Thr Lys Asp Leu Leu Leu Pro
 65          70          75          80
Ile Lys Thr Pro Thr Thr Asn Ala Val His Lys Cys Arg Val His Gly
 85          90          95
Leu Glu Ile Glu Gly Arg Asp Cys Gly Glu Ala Ala Ala Gln Trp Ile
100          105          110
Thr Ser Phe Leu Lys Ser Gln Pro Tyr Arg Leu Val His Phe Glu Pro
115          120          125
His Met Arg Pro Arg Arg Pro His Gln Ile Ala Asp Leu Phe Arg Pro
130          135          140
Lys Asp Gln Ile Ala Tyr Ser Asp Thr Ser Pro Phe Leu Ile Leu Ser
145          150          155          160
Glu Ala Ser Leu Ala Asp Leu Asn Ser Arg Leu Glu Lys Lys Val Lys
165          170          175
Ala Thr Asn Phe Arg Pro Asn Ile Val Ile Ser Gly Cys Asp Val Tyr
180          185          190
Ala Glu Asp Ser Trp Asp Glu Leu Leu Ile Gly Asp Val Glu Leu Lys
195          200          205
Arg Val Met Ala Cys Ser Arg Cys Ile Leu Thr Thr Val Asp Pro Asp
210          215          220
Thr Gly Val Met Ser Arg Lys Glu Pro Leu Glu Thr Leu Lys Ser Tyr
225          230          235          240
Arg Gln Cys Asp Pro Ser Glu Arg Lys Leu Tyr Gly Lys Ser Pro Leu
245          250          255
Phe Gly Gln Tyr Phe Val Leu Glu Asn Pro Gly Thr Ile Lys Val Gly
260          265          270
Asp Pro Val Tyr Leu Leu Gly Gln
275          280

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<210> 3807

<211> 372

<212> DNA

<213> Homo sapiens

<400> 3807

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120
cagggcggtc gcttcccggt gctcagctac caccgcggctc ccagcggcag agggagcgcg
180

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ccctccccac gctccgcccc tgggtggctg cgtcctttct gggccttttc tttttggccc
240
gggtcaattcg cggcgtagcc gctgccccaa ctctgcccc attctgggtcc cgccccctctc
300
ccgccttttc gctgggaagg gtatcacctt tctctggccc cgccctgac ggttcgggg
360
ccgcgaagc tt
372

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<210> 3808

<211> 85

<212> PRT

<213> Homo sapiens

<400> 3808

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Xaa Ala Trp Arg Leu Ser Glu Val Asn Glu Asp Phe Ser Leu Cys Pro
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Arg Tyr Pro Arg Ala Val Ile Val Pro Tyr Leu Val Asp Asp Ala
20 25 30
Leu Ala Arg Ser Ala Arg Phe Arg Gln Gly Gly Arg Phe Pro Val Leu
35 40 45
Ser Tyr His Pro Ala Pro Ser Gly Arg Gly Ser Ala Pro Ser Pro Arg
50 55 60
Ser Ala Pro Gly Trp Leu Arg Pro Phe Trp Ala Phe Ser Phe Trp Pro
65 70 75 80
Gly Gln Phe Ala Ala
85

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<210> 3809

<211> 1221

<212> DNA

<213> Homo sapiens

<400> 3809

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aggctgtacg catataaaca gggaggaggc aggccttgag aactcgccag ggtgcctggg
120
ataagctgtg actttttgcc cctgatgcca taagtggag ggtcctctgc tcaaacata
180
tggtacacac ttctccttct ttcatctgg tatcatgtat catctctcag atccaataag
240
aaaacattcc cagctcttc cctccctccc tagtaccag gtctcatct cagttttcat
300
gggtccatgg agggtcgcct ctagtatga gctggaatct taaggcctga aatagagcca
360
gactgcagca gtcccaagtc ctggagagct tcaagtaact gctcccgcgc agagccaata
420
aaggaattct ccaggaaggt aggcaggcct cctacacat cccgcagggt atacaggggc
480
actgcacca ggcccagcac ctccagcccg tggctcttgg cgctgtgtgc gccggcctcc
540
acagccaaca gctcctcgag ctccagcgt tggcatagaa gtgccacaac gcgtggcctc
600

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gacccgacgt gggagctgcg gtagtcagtg cgctccacgc ggaaagcggc agccgcttcg
 660
 cccagctcct cgcgcagctc gcggttcagc ccgtcctcta ggcttctgtc ctgcgtgtcc
 720
 acgaatccgc cggggaagcc caggcgtcca tcgaagcgca tctgcatcag tatggcgtag
 780
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 840
 ctctgttttg ctaattctgt cttaactctt cagctcagca agactactgg gctctctttg
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 960
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 1020
 gtacattttg tctggttttc tagttaagcg aggaggataa atctgtgtgc tgtttttcca
 1080
 tcatggccag aagcaaaatc tgtatcatgt tctagtaatt ttcacaacta tcaaatgtag
 1140
 tcttactaat cttttctcaa tacctaaagt tcaaatcttc ttttgtcaat ctgttatcaa
 1200
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 1221

<210> 3810

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3810

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Ser	Trp	Arg	Ala	Ser	Ser	Asn	Cys	Ser	Arg	Ala	Glu	Pro	Ile	Lys	Glu
		20					25				30				
Phe	Ser	Arg	Lys	Val	Gly	Arg	Pro	Thr	Pro	Ser	Arg	Arg	Val	Tyr	
	35					40					45				
Arg	Gly	Thr	Arg	Thr	Arg	Pro	Ser	Thr	Ser	Pro	Trp	Ser	Leu	Ala	
	50				55					60					
Arg	Val	Ala	Pro	Ala	Ser	Thr	Ala	Asn	Ser	Ser	Ser	Ser	Asp	Ala	
	65			70					75				80		
Trp	His	Arg	Ser	Ala	Thr	Thr	Arg	Gly	Pro	Asp	Pro	Thr	Trp	Glu	Leu
			85					90					95		

Arg

<210> 3811

<211> 296

<212> DNA

<213> Homo sapiens

<400> 3811

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 120

acaccacgcc agatatctgg gcagcagggg catctgacct ggggtgcttg ctggcagcac
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 296

<210> 3812

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3812

Met	Gly	Ala	Arg	Ala	Arg	Ser	Leu	Ile	Val	Pro	Pro	Thr	Ala	Gln	Val
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Pro	Val	Leu	Lys	Ala	Gln	Asn	Cys	Arg	Pro	Ser	Gly	Arg	Pro	Val	Leu
			20					25					30		
Pro	Tyr	Gln	Arg	Thr	Pro	Arg	Gln	Ile	Ser	Gly	Gln	Gln	Gly	His	Leu
		35					40					45			
Thr	Trp	Gly	Ala	Cys	Trp	Gln	His	Cys	Leu	Asp	Ser	Arg	Ala	Ser	Leu
	50					55				60					
Gly	Pro	Pro	Pro	Asn	Pro	Ala	Arg	Glu	Arg	Leu	Lys	Ala	Cys	Pro	Pro
65				70					75					80	
Cys	Trp	Ala	Trp	Val	Gly	Arg	Ser	Gly	Thr	Gly	Pro	Ser	Arg		
			85						90						

<210> 3813

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 3813

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 120
 gactcaactga gtgcccgcgc cacactgcac accttcgac tgcttggtct cgggcgaagc
 180
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 300
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 360
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 420
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 480
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 540
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 aatcccagtg gtgagacagc attcaaagcc atgatggagt cctttggctg ggcccgccgc
 660

cctatgctgg agcgaattca cttgattcga aaagatgtgc ctatcactat gatctacggg
 720
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 780
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 840
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<210> 3814

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3814

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 35 40 45
 Leu His Thr Phe Asp Leu Leu Gly Phe Gly Arg Ser Ser Arg Pro Ala
 50 55 60
 Phe Pro Arg Asp Pro Glu Gly Ala Glu Asp Glu Phe Val Thr Ser Ile
 65 70 75 80
 Glu Thr Trp Arg Glu Thr Met Gly Ile Pro Ser Met Ile Leu Leu Gly
 85 90 95
 His Ser Leu Gly Gly Phe Leu Ala Thr Ser Tyr Ser Ile Lys Tyr Pro
 100 105 110
 Asp Arg Val Lys His Leu Ile Leu Val Asp Pro Trp Gly Phe Pro Leu
 115 120 125
 Arg Pro Thr Asn Pro Ser Glu Ile Arg Ala Pro Pro Ala Trp Val Lys
 130 135 140
 Ala Val Ala Ser Val Leu Gly Arg Ser Asn Pro Leu Ala Val Leu Arg
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[illegible]

<210> 3815

<211> 3669

<212> DNA

<213> Homo sapiens

<400> 3815

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120					
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180					
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240					
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300					
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360					
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420					
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600					
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660					
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720					
gcccgagat	gcttccccgc	tatccacgcc	tacaagggtg	tctgtatggt	gggcaatgag
780					
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840					
aagaagaagca	atggagtctc	agaggcgcg	caactcgcca	tgcgatatt	tgaagattac
900					

accgtctctt ggtactggat tatcataggg ctggtcattg ccatggcgat gagcctcctg
960
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<213> Homo sapiens

<400> 3816

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<212> DNA

<213> Homo sapiens

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Ile Arg Lys Leu Arg Gln Asp Ile Leu Leu Met Lys Pro Tyr Phe Ile
      50           55           60
Thr Cys Arg Glu Ala Met Glu Ala Arg Leu Leu Leu Gln Asp Leu Leu
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Leu Phe Ala Lys His Ile Lys Leu Asp Cys Glu Arg Cys Gln Ala Lys
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<213> Homo sapiens

<400> 3820

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 3826

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<213> Homo sapiens

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<213> Homo sapiens

<400> 3830

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<212> DNA

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<213> Homo sapiens

<400> 3833

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<210> 3834

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3834

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Val	Ser	Val	Cys	Asp	His	Cys	Lys	Gly	Lys	Met	Gln	Leu	Val	Ala	Asp
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Ser	Gln	Leu	Asn	Met	Gly	Arg	Phe	Gly	Glu	Ala	Gly	Asp	Ser	Leu	Val
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Glu	Leu	Gly	Asp	Leu	Val	Val	Ser	Leu	Thr	Glu	Cys	Ser	Ala	His	Ala
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Gly	Leu	Val	Asp	Arg	Tyr	Arg	Val	Thr	Arg	Cys	Arg	His	Glu	Val	Glu
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Gln	Gly	Cys	Ala	Val	Leu	Arg	Ala	Thr	Pro	Leu	Ala	Asp	Met	Thr	Pro
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Gln	Leu	Leu	Leu	Glu	Val	Ser	Gln	Gly	Leu	Ser	Arg	Asn	Leu	Lys	Phe
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Leu	Thr	Asp	Ala	Cys	Ala	Leu	Ala	Ser	Asp	Lys	Ser	Arg	Asp	Arg	Phe
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Ser	Arg	Glu	Gln	Phe	Lys	Leu	Gly	Val	Lys	Cys	Met	Ser	Thr	Ser	Ala
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Ser	Ala	Leu	Leu	Ala	Cys	Val	Arg	Glu	Val	Lys	Val	Ala	Pro	Ser	Glu
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Leu	Ala	Arg	Ser	Arg	Cys	Ala	Leu	Phe	Ser	Gly	Pro	Leu	Val	Gln	Ala
			245						250					255	
Val	Ser	Ala	Leu	Val	Gly	Phe	Ala	Thr	Glu	Pro	Gln	Phe	Leu	Gly	Arg
		260					265						270		
Ala	Ala	Ala	Val	Ser	Ala	Glu	Gly	Lys	Ala	Val	Gln	Thr	Ala	Ile	Leu
	275						280						285		
Gly	Gly	Ala	Met	Ser	Val	Val	Ser	Ala	Cys	Val	Leu	Leu	Thr	Gln	Cys

290		295		300
Leu Arg Asp Leu Ala Gln His Pro Asp Gly Gly Ala Lys Met Ser Asp				
305	310	315	320	
His Arg Glu Arg Leu Arg Asn Ser Ala Cys Ala Val Ser Glu Gly Cys				
	325	330	335	
Thr Leu Leu Ser Gln Ala Leu Arg Glu Arg Ser Ser Pro Arg Thr Leu				
	340	345	350	
Pro Pro Val Asn Ser Asn Ser Val Asn				
355	360			

<210> 3835

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 3835

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 180
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 420
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 480
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 1980
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<210> 3836

<211> 479

<212> PRT

<213> Homo sapiens

<400> 3836

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 Gly Gly Ile Glu Gln Met Gly Leu Ala Met Glu His Gly Gly Ser Tyr

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  65              70              75
Val Leu Phe Met Val Tyr Gly Asn Val His Val Ser Thr Glu Ser Asn
      85              90              95
Leu Gln Ala Thr Glu Arg Arg Ala Glu Gly Leu Tyr Ser Gln Leu Leu
      100              105              110
Gly Leu Thr Ala Ser Gln Ser Asn Leu Thr Lys Glu Leu Asn Phe Thr
      115              120              125
Thr Arg Ala Lys Asp Ala Ile Met Gln Met Trp Leu Asn Ala Arg Arg
      130              135              140
Asp Leu Asp Arg Ile Asn Ala Ser Phe Arg Gln Cys Gln Gly Asp Arg
      145              150              155
Val Ile Tyr Thr Asn Asn Gln Arg Tyr Met Ala Ala Ile Ile Leu Ser
      165              170              175
Glu Lys Gln Cys Arg Asp Gln Phe Lys Asp Met Asn Lys Ser Cys Asp
      180              185              190
Ala Leu Leu Phe Met Leu Asn Gln Lys Val Lys Thr Leu Glu Val Glu
      195              200              205
Ile Ala Lys Glu Lys Thr Ile Cys Thr Lys Asp Lys Glu Ser Val Leu
      210              215              220
Leu Asn Lys Arg Val Ala Glu Glu Gln Leu Val Glu Cys Val Lys Thr
      225              230              235
Arg Glu Leu Gln His Gln Glu Arg Gln Leu Ala Lys Glu Gln Leu Gln
      245              250              255
Lys Val Gln Ala Leu Cys Leu Pro Leu Asp Lys Asp Lys Phe Glu Met
      260              265              270
Asp Leu Arg Asn Leu Trp Arg Asp Ser Ile Ile Pro Arg Ser Leu Asp
      275              280              285
Asn Leu Gly Tyr Asn Leu Tyr His Pro Leu Gly Ser Glu Leu Ala Ser
      290              295              300
Ile Arg Arg Ala Cys Asp His Met Pro Ser Leu Met Ser Ser Lys Val
      305              310              315
Glu Glu Leu Ala Arg Ser Leu Arg Ala Asp Ile Glu Arg Val Ala Arg
      325              330              335
Glu Asn Ser Asp Leu Gln Arg Gln Lys Leu Glu Ala Gln Gln Gly Leu
      340              345              350
Arg Ala Ser Gln Glu Ala Lys Gln Lys Val Glu Lys Glu Ala Gln Ala
      355              360              365
Arg Glu Ala Lys Leu Gln Ala Glu Cys Ser Arg Gln Thr Gln Leu Ala
      370              375              380
Leu Glu Glu Lys Ala Val Leu Arg Lys Glu Arg Asp Asn Leu Ala Lys
      385              390              395
Glu Leu Glu Glu Lys Lys Arg Glu Ala Glu Gln Leu Arg Met Glu Leu
      405              410              415
Ala Ile Arg Asn Ser Ala Leu Asp Thr Cys Ile Lys Thr Lys Ser Gln
      420              425              430
Pro Met Met Pro Val Ser Arg Pro Met Gly Pro Val Pro Asn Pro Gln
      435              440              445
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465

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<210> 3837

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 3837

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120

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180

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240

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 2084

<210> 3838

<211> 468

<212> PRT

<213> Homo sapiens

<400> 3838

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 35 40 45
 Val Leu Gly Leu Ser Val Ala Tyr Trp Leu Lys Lys Leu Glu Ser Arg
 50 55 60
 Arg Gly Ala Ile Arg Val Leu Val Val Glu Arg Asp His Thr Tyr Ser
 65 70 75 80
 Gln Ala Ser Thr Gly Leu Ser Val Gly Gly Ile Cys Gln Gln Phe Ser
 85 90 95
 Leu Pro Glu Asn Ile Gln Leu Ser Leu Phe Ser Ala Ser Phe Leu Arg
 100 105 110
 Asn Ile Asn Glu Tyr Leu Ala Val Val Asp Ala Pro Pro Leu Asp Leu
 115 120 125
 Arg Phe Asn Pro Ser Gly Tyr Leu Leu Ala Ser Glu Lys Asp Ala
 130 135 140
 Ala Ala Met Glu Ser Asn Val Lys Val Gln Arg Gln Glu Gly Ala Lys
 145 150 155 160
 Val Ser Leu Met Ser Pro Asp Gln Leu Arg Asn Lys Phe Pro Trp Ile
 165 170 175
 Asn Thr Glu Gly Val Ala Leu Ala Ser Tyr Gly Met Glu Asp Glu Gly

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195              200              205
Ser Leu Gly Val Leu Phe Cys Gln Gly Glu Val Thr Arg Phe Val Ser
210              215              220
Ser Ser Gln Arg Met Leu Thr Thr Asp Asp Lys Ala Val Val Leu Lys
225              230              235
Arg Ile His Glu Val His Val Lys Met Asp Arg Ser Leu Glu Tyr Gln
245              250              255
Pro Val Glu Cys Ala Ile Val Ile Asn Ala Ala Gly Ala Trp Ser Ala
260              265              270
Gln Ile Ala Ala Leu Ala Gly Val Gly Glu Gly Pro Pro Gly Thr Leu
275              280              285
Gln Gly Thr Lys Leu Pro Val Glu Pro Arg Lys Arg Tyr Val Tyr Val
290              295              300
Trp His Cys Pro Gln Gly Pro Gly Leu Glu Thr Pro Leu Val Ala Asp
305              310              315
Thr Ser Gly Ala Tyr Phe Arg Arg Glu Gly Leu Gly Ser Asn Tyr Leu
325              330              335
Gly Gly Arg Ser Pro Thr Glu Gln Glu Glu Pro Asp Pro Ala Asn Leu
340              345              350
Glu Val Asp His Asp Phe Phe Gln Asp Lys Val Trp Pro His Leu Ala
355              360              365
Leu Arg Val Pro Ala Phe Glu Thr Leu Lys Cys Phe Val His Pro Gln
370              375              380
Val Gln Ser Ala Trp Ala Gly Tyr Tyr Asp Tyr Asn Thr Phe Asp Gln
385              390              395
Asn Gly Val Val Gly Pro His Pro Leu Val Val Asn Met Tyr Phe Ala
405              410              415
Thr Gly Phe Ser Gly His Gly Leu Gln Gln Ala Pro Gly Ile Gly Arg
420              425              430
Ala Val Ala Glu Met Val Leu Lys Gly Arg Phe Gln Thr Ile Asp Leu
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Ser Pro Phe Leu Phe Thr Arg Phe Tyr Leu Gly Glu Lys Ile Gln Glu
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<210> 3839

<211> 758

<212> DNA

<213> Homo sapiens

<400> 3839

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180
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300

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<210> 3840

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3840

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			20					25				30			
Met	Glu	Tyr	Leu	Asn	Ser	Arg	Cys	Val	Leu	Phe	Thr	Tyr	Phe	Gln	Gly
		35					40				45				
Asp	Ile	Gly	Ser	Val	Val	Asp	Glu	His	Phe	Ser	Arg	Ala	Leu	Gly	Gln
	50					55				60					
Ala	Ile	Thr	Leu	His	Pro	Glu	Ser	Ala	Ile	Ser	Lys	Ser	Lys	Met	Gly
	65				70				75					80	
Leu	Thr	Pro	Leu	Trp	Arg	Asp	Ser	Ser	Ala	Leu	Ser	Ser	Gln	Arg	Asn
			85					90					95		
Ser	Phe	Pro	Thr	Ser	Phe	Trp	Thr	Ser	Ser	Tyr	Gln	Pro	Pro	Pro	Ala
			100				105						110		
Pro	Cys	Leu	Gly	Gly	Val	His	Pro	Asp	Phe	Gln	Val	Thr	Gly	Pro	Pro
		115					120				125				
Gly	Thr	Phe	Ser	Ala	Ala	Asp	Pro	Ser	Pro	Trp	Pro	Gly	His	Asn	Leu
	130				135						140				
His	Gln	Thr	Gly	Pro	Ala	Pro	Pro	Pro	Ala	Val	Ser	Glu	Ser	Trp	Pro
	145				150				155					160	
Tyr	Pro	Leu	Thr	Ser	Gln	Val	Ser	Pro	Ser	Tyr	Ser	His	Met	His	Asp
			165					170					175		
Val	Tyr	Met	Arg	His	His	His	Pro	His	Ala	His	Met	His	His	Arg	His
		180						185					190		
Arg	His	His	His	His	His	His	His	Pro	Pro	Ala	Gly	Ser	Ala	Leu	Asp
		195					200				205				
Pro	Ser	Tyr	Gly	Pro	Leu	Leu	Met	Pro	Ser	Val	His	Ala	Ala	Arg	Ile
	210				215						220				
Pro	Ala	Pro	Gln	Cys	Asp	Ile	Thr	Lys	Thr	Glu	Pro	Thr	Thr	Val	Thr
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250

<210> 3841

<211> 367

<212> DNA

<213> Homo sapiens

<400> 3841

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 240
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<210> 3842

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3842

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Ala	Gly	Tyr	Trp	Val	Ser	Thr	Cys	Trp	Gly	Leu	Ser	Phe	Val	Val	Pro
			20					25				30			
Gly	Ala	Ile	Val	Ala	Ala	Met	Gly	Ile	Val	Cys	Phe	Leu	Phe	Leu	Ile
	35						40				45				
Glu	His	Pro	Asn	Asp	Val	Arg	Cys	Ser	Ser	Thr	Leu	Val	Thr	His	Ser
	50				55					60					
Lys	Gly	Tyr	Glu	Asn	Gly	Thr	Asn	Arg	Leu	Ser	Leu	Pro	Lys	Pro	Ile
	65			70				75						80	
Leu	Lys	Ser	Glu	Lys	Asn	Lys	Pro	Leu	Asp	Pro	Glu	Met	Gln	Cys	Leu
			85					90					95		
Leu	Leu	Ser	Asp	Gly	Lys	Gly	Ser	Ile	His	Pro	Asn	His	Val	Val	Ile
			100					105					110		
Leu	Pro	Gly	Asp	Gly	Gly	Ser	Gly	Pro	Ala						
			115				120								

<210> 3843

<211> 712

<212> DNA

<213> Homo sapiens

<400> 3843

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 480
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 600
 acgacacaga gagatcaaca agcaagccac ccgaggggac tgccgtggcct tccagatgag
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 712

<210> 3844

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3844

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Arg	Gly	Arg	Gly	Ser	Glu	Lys	Arg	Lys	Lys	Ser	Arg	Lys	Asp	Thr			
			20					25					30				
Ser	Arg	Asn	Cys	Ser	Ala	Ser	Thr	Ser	Gln	Gly	Arg	Lys	Ala	Ser	Thr		
		35					40					45					
Ala	Pro	Gly	Ala	Glu	Ala	Ser	Pro	Ser	Pro	Cys	Ile	Thr	Glu	Arg	Ser		
	50					55					60						
Lys	Gln	Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65					70					75					80		
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
			85						90						95		
Ser	Ser	Asp	Gly	Arg	Lys	Lys	Arg	Gly	Lys	Tyr	Lys	Asp	Lys	Arg	Arg		
		100						105					110				
Lys	Lys	Lys	Lys	Lys	Arg	Lys	Leu	Lys	Lys	Lys	Gly	Lys	Glu	Lys			
		115					120					125					
Ala	Glu	Ala	Gln	Gln	Ala	Glu	His	His	Pro	Gln	Gly	Gly	Gly	Pro			
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<210> 3845

<211> 2302

<212> DNA

<213> Homo sapiens

<400> 3845

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420
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1620

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<210> 3846

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3846

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Cys	Arg	Ala	Gly	Leu	Trp	Gly	Pro	Ala	Asp	Pro	Ser	Ser	Gln	Asn	Gln
			20					25						30	
Gly	Pro	Ala	Glu	Pro	Arg	Val	Ala	Gly	Ala	Gly	Ala	Ala	Ala	Ala	Glu
			35				40				45				
Gly	Ala	Ala	Ala	Gly	Ala	Cys	Gly	Pro	Ala	Arg	Cys	Ala	Asp	Gln	Gly
			50			55					60				
Gly	Ala	Arg	Glu	Arg	Gly	Gly	Arg	Gly	Gly	Arg	Gly	Ala	Gly	Gly	Gly
					70					75				80	
Gly	Gly	Ala	His	Gly	His	Phe	Pro	Gln	Arg	Pro	Pro	Gln	Gln	Ala	Gly
			85						90					95	
Gln	Arg	Ala	Ala	Ser	Arg	Ala	Gly	Cys	Gly	His	Arg	Gln	Leu	Gln	Arg
			100					105					110		
Ala	Pro	Ala	Pro	Gly	Leu	Arg	Gln	His	Pro	Cys	Gly	Ser	Gly	Thr	Glu
			115				120					125			
Gly	Leu	Arg	Gly	Gly	His	Leu	Ser	Glu	Thr	Val	Cys	Ala	His	Ala	Glu
			130			135					140				
Arg	Thr	Gln	Ala	Pro	Leu	Gln	Ser	Ala	Leu	Gly	Gln	Pro	Ala	Pro	Arg
					150					155				160	
Pro	His	Thr	Leu	Gln	Arg	His	Leu	Gly	Pro	His	Ala	Thr	Gly	His	Gly
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 <210> 3847
 <211> 1570
 <212> DNA
 <213> Homo sapiens
 <400> 3847
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 240
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<210> 3848

<211> 120

<212> PRT

<213> Homo sapiens

<400> 3848

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Phe	Lys	Lys	Ala	Val	Thr	Asp	Ala	Ile	Met	Ser	Arg	Arg	Ala	Ile	Arg
			20					25					30		
Asn	Met	Asn	Thr	Leu	Tyr	Pro	Asp	Ala	Thr	Pro	Glu	Glu	Leu	Gln	Ala
			35				40				45				
Met	Asp	Asn	Val	Cys	Ile	Ile	Cys	Arg	Glu	Glu	Met	Val	Thr	Gly	Ala
	50				55				60						
Lys	Arg	Leu	Pro	Cys	Asn	His	Ile	Phe	His	Thr	Arg	Trp	Glu	Gly	Pro
65					70				75					80	
Trp	Gly	Ala	Cys	Pro	Ala	Gly	Pro	Arg	Pro	Gln	Lys	Ala	Gly	Pro	Lys
			85					90					95		
Gly	Pro	Ala	Asp	Leu	Cys	Leu	Ala	Leu	Thr	Arg	Ser	Cys	Leu	Arg	Ser
			100				105						110		
Trp	Phe	Gln	Arg	Gln	Gln	Thr	Cys								
			115				120								

<210> 3849

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 3849

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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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 35 40 45
 Ala Ala Arg Gly Tyr Val Val Arg Lys Pro Ala Gln Ser Arg Leu Asp
 50 55 60
 Asp Asp Pro Pro Pro Ser Thr Leu Leu Lys Asp Tyr Gln Asn Val Pro
 65 70 75 80
 Gly Ile Glu Lys Val Asp Asp Val Val Lys Arg Leu Leu Ser Leu Glu
 85 90 95
 Met Ala Asn Lys Lys Glu Met Leu Lys Ile Lys Gln Glu Gln Phe Met
 100 105 110
 Lys Lys Ile Val Ala Asn Pro Glu Asp Thr Arg Ser Leu Glu Ala Arg
 115 120 125
 Ile Ile Ala Leu Ser Val Lys Ile Arg Ser Tyr Glu Glu His Leu Glu
 130 135 140
 Lys His Arg Lys Asp Lys Ala His Lys Arg Tyr Leu Leu Met Ser Ile
 145 150 155 160
 Asp Gln Arg Lys Lys Met Leu Lys Asn Leu Arg Asn Thr Asn Tyr Asp
 165 170 175
 Val Phe Glu Lys Ile Cys Trp Gly Leu Gly Ile Glu Tyr Thr Phe Pro

	180		185		190									
Pro	Leu	Tyr	Arg	Arg	Ala	His	Arg	Arg	Phe	Val	Thr	Lys	Lys	Ala
	195				200							205		
Leu	Cys	Ile	Arg	Val	Phe	Gln	Glu	Thr	Gln	Lys	Leu	Lys	Lys	Arg
	210				215						220			
Arg	Ala	Leu	Lys	Ala	Ala	Ala	Ala	Gln	Lys	Gln	Ala	Lys	Arg	Arg
	225			230				235					240	
Asn	Pro	Asp	Ser	Pro	Ala	Lys	Ala	Ile	Pro	Lys	Thr	Leu	Lys	Asp
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Gln

<210> 3851

<211> 1183

<212> DNA

<213> Homo sapiens

<400> 3851

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 1183

<210> 3852
 <211> 323
 <212> PRT
 <213> Homo sapiens

<400> 3852
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 35 40 45
 Leu Gln Gly Gln Val Gln Arg Thr Glu Val Ala Arg Gly Arg Leu Glu
 50 55 60
 Lys Arg Asn Ser Asp Leu Leu Leu Val Asp Thr His Lys Lys Gln
 65 70 75 80
 Ile Asp Gln Lys Glu Ala Asp Tyr Gly Arg Leu Ser Ser Arg Leu Gln
 85 90 95
 Ala Arg Glu Gly Leu Gly Lys Arg Cys Glu Asp Asp Lys Val Lys Leu
 100 105 110
 Gln Asn Asn Ile Ser Tyr Gln Met Ala Asp Ile His His Leu Lys Glu
 115 120 125
 Gln Leu Ala Glu Leu Arg Gln Glu Phe Leu Arg Gln Glu Asp Gln Leu
 130 135 140
 Gln Asp Tyr Arg Lys Asn Asn Thr Tyr Leu Val Lys Arg Leu Glu Tyr
 145 150 155 160
 Glu Ser Phe Gln Cys Gly Gln Gln Met Lys Glu Leu Arg Ala Gln His
 165 170 175
 Glu Glu Asn Ile Lys Lys Leu Ala Asp Gln Phe Leu Glu Glu Gln Lys
 180 185 190
 Gln Glu Thr Gln Lys Ile Gln Ser Asn Asp Gly Lys Glu Leu Asp Ile
 195 200 205
 Asn Asn Gln Val Val Pro Lys Asn Ile Pro Lys Val Ala Glu Asn Val
 210 215 220
 Ala Asp Lys Asn Glu Glu Pro Ser Ser Asn His Ile Pro His Gly Lys
 225 230 235 240
 Glu Gln Ile Lys Arg Gly Gly Asp Ala Gly Met Pro Gly Ile Glu Glu
 245 250 255
 Asn Asp Leu Ala Lys Val Asp Asp Leu Pro Pro Ala Leu Arg Lys Pro
 260 265 270
 Pro Ile Ser Val Ser Gln His Glu Ser His Gln Ala Ile Ser His Leu
 275 280 285
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 Leu His Ala

<210> 3853

<211> 375

<212> DNA

<213> Homo sapiens

<400> 3853

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 120
 atggacgaac gaaggactat taaactcagt gagggtttaca gaggatttgc tgactcagaa
 180
 cgcaaaagtta ttcccatcat ttcaaaatgt ttggaaggaa tgattcttgc agcaaaatca
 240
 gttgatgaaa gaagagactc tcaaatgggtg gtagactcct tcaaatctgg ttttgaacct
 300
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<210> 3854

<211> 125

<212> PRT

<213> Homo sapiens

<400> 3854

Arg	Thr	His	Met	Ala	Asp	Glu	Asn	Lys	Asn	Glu	Tyr	Ala	Ala	Gln	Leu
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Gln	Asn	Phe	Asn	Gly	Glu	Gln	His	Lys	His	Phe	Tyr	Val	Val	Ile	Pro
			20					25					30		
Gln	Ile	Tyr	Lys	Gln	Leu	Gln	Glu	Met	Asp	Glu	Arg	Arg	Thr	Ile	Lys
			35				40					45			
Leu	Ser	Glu	Cys	Tyr	Arg	Gly	Phe	Ala	Asp	Ser	Glu	Arg	Lys	Val	Ile
			50				55				60				
Pro	Ile	Ile	Ser	Lys	Cys	Leu	Glu	Gly	Met	Ile	Leu	Ala	Ala	Lys	Ser
					70					75				80	
Val	Asp	Glu	Arg	Arg	Asp	Ser	Gln	Met	Val	Val	Asp	Ser	Phe	Lys	Ser
				85				90					95		
Gly	Phe	Glu	Pro	Pro	Gly	Asp	Phe	Pro	Phe	Glu	Asp	Tyr	Ser	Gln	His
			100				105						110		
Ile	Tyr	Arg	Thr	Ile	Ser	Asp	Gly	Thr	Ile	Ser	Ala	Ser			
			115				120					125			

<210> 3855

<211> 1377

<212> DNA

<213> Homo sapiens

<400> 3855

naagctgcga ccatggcaac ctacaaccag ctctcctatg cccagaaggc caagtaccac
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 120

cagaactgtg gctctgggtg ggttgggata gtggactatg gacctagacc caacaagagt
 180
 gaaatgtggg atgtcttctg ctatcggatg aaagatgtga actgcacctg caaggtgggc
 240
 tatgtgggag atggcttctc atgcagtggg aacctgtctg aggtcctgat gtccttcccc
 300
 tcactcaca aacttctgac ggaagtgtct gcctattcca acagctcagc tcgaggccgt
 360
 gcatttctag aacacctgac tgacctgtcc atccggcgga cctctttgtg gccacagaa
 420
 agtgggctgg gggagaatga gaccttgtct gggcgggaca tcgagcacca cctcgccaat
 480
 gtcagcatgt ttttctacaa tgacctgtgc aatggcaccc accctgcaaa cgaggggtgg
 540
 aagcaagctg ctcactactg ccagccagga cccactnncc aaccgacgga gaccaggttt
 600
 gttgatggaa gagccattct gcagtgggac atctttgcct ccaatgggat cattcatgtc
 660
 atttccaggc ctttaaaagc accccctgcc cccgtgacct tgaccacac tggtctggga
 720
 gcagggatct tctttgccat catcctgggt actggggctg ttgccttggc tgcttactcc
 780
 tactttcgga taaaccggag aacaatcggc ttccagcatt ttgagtcgga agaggacatt
 840
 aatgttcgag ctcttggcaa gcagcagcct gagaatatct cgaaccctt gtatgagagc
 900
 acaacctcag cccccccaga accttcttac gaccttcca cgactctga agaacggcag
 960
 cttgagggca atgacctt gaggacactg tgagggcctg gacgggagat gccagccatc
 1020
 actcactgcc acctgggcca tcaactgtga attctcagca ccagtgcct tttaggaacg
 1080
 taaagtcctt taagcactca gaagccatac ctcattcttc tggtgatct gggggttgtt
 1140
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 1200
 ggctcttctt cctttgtact cttcagctgg cacctgtctc attctgcctt acatgatggg
 1260
 taactgtgat ctttcttccc tgttagattg taagcctccg tctttgtatc ccagccccta
 1320
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 1377

<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

Xaa Ala Ala Thr Met Ala Thr Tyr Asn Gln Leu Ser Tyr Ala Gln Lys
 1 5 10 15
 Ala Lys Tyr His Leu Cys Ser Ala Gly Trp Leu Glu Thr Gly Arg Val
 20 25 30
 Ala Tyr Pro Thr Ala Phe Ala Ser Gln Asn Cys Gly Ser Gly Val Val

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      35              40              45
Gly Ile Val Asp Tyr Gly Pro Arg Pro Asn Lys Ser Glu Met Trp Asp
 50              55              60
Val Phe Cys Tyr Arg Met Lys Asp Val Asn Cys Thr Cys Lys Val Gly
 65              70              75              80
Tyr Val Gly Asp Gly Phe Ser Cys Ser Gly Asn Leu Leu Gln Val Leu
      85              90              95
Met Ser Phe Pro Ser Leu Thr Asn Phe Leu Thr Glu Val Leu Ala Tyr
      100              105              110
Ser Asn Ser Ser Ala Arg Gly Arg Ala Phe Leu Glu His Leu Thr Asp
      115              120              125
Leu Ser Ile Arg Gly Thr Leu Phe Val Pro Gln Asn Ser Gly Leu Gly
      130              135              140
Glu Asn Glu Thr Leu Ser Gly Arg Asp Ile Glu His His Leu Ala Asn
      145              150              155              160
Val Ser Met Phe Phe Tyr Asn Asp Leu Val Asn Gly Thr Xaa Pro Ala
      165              170              175
Asn Glu Gly Gly Lys Gln Ala Ala His His Cys Gln Pro Gly Pro Thr
      180              185              190
Xaa Gln Pro Thr Glu Thr Arg Phe Val Asp Gly Arg Ala Ile Leu Gln
      195              200              205
Trp Asp Ile Phe Ala Ser Asn Gly Ile Ile His Val Ile Ser Arg Pro
      210              215              220
Leu Lys Ala Pro Pro Ala Pro Val Thr Leu Thr His Thr Gly Leu Gly
      225              230              235              240
Ala Gly Ile Phe Phe Ala Ile Ile Leu Val Thr Gly Ala Val Ala Leu
      245              250              255
Ala Ala Tyr Ser Tyr Phe Arg Ile Asn Arg Arg Thr Ile Gly Phe Gln
      260              265              270
His Phe Glu Ser Glu Glu Asp Ile Asn Val Ala Ala Leu Gly Lys Gln
      275              280              285
Gln Pro Glu Asn Ile Ser Asn Pro Leu Tyr Glu Ser Thr Thr Ser Ala
      290              295              300
Pro Pro Glu Pro Ser Tyr Asp Pro Phe Thr Asp Ser Glu Glu Arg Gln
      305              310              315              320
Leu Glu Gly Asn Asp Pro Leu Arg Thr Leu
      325              330

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<210> 3857

<211> 797

<212> DNA

<213> Homo sapiens

<400> 3857

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 120
ccttccacca ggtcctgggg gagaagcata agcgcggcca cctggccgag gccgaggggc
 180
acagggacac ttgcgacgaa gactcgggtg ccggcggagtc ggaccgcata gacgatggca
 240
ctgttaattg ccgcggctgc tccccgggag agtcggcctc ggggggacctg tccaaaaagc
 300

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tgctgctggg cagccccagc tcgctgagcc ccttctctaa ggcgatcaag ctcgagaagg
 360
 agttcgacct gcccccggcc gcgatgccca acacggagaa cgtgtactcg cagtggctcg
 420
 ccggctacgc ggccctccagg cagctcaaag atcccttctc tagcttcgga gactccagac
 480
 aatcgccctt tgccctctcg tcggagcact cctcggagaa cgggagcttg cgctcttcca
 540
 caccgccccg ggagctggac ggagggatct cggggcgagc cggcacggga agtggaggga
 600
 gcacgcccca tattagtggg ccggggcccg gcaggcccag ctcaaaagag ggcagacgca
 660
 gcgacacttg ttcttcacac acccccattc ggcgtagtac ccagagagct caagatgtgt
 720
 ggccagtttc ggatggaagc tcgagagccc ttaagtctcg agaaaatttg aagccccggg
 780
 ggggtggggtg gacgcgt
 797

<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

Xaa	Arg	Ala	Thr	Thr	Arg	Thr	Ala	Ser	Gly	Ala	Arg	Ser	Trp	Ala	Trp
1				5					10				15		
Ala	Thr	Arg	Ala	Ala	Pro	Cys	Pro	Thr	Ser	Cys	Arg	Ala	Trp	Cys	Ser
			20					25					30		
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35					40					45			
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
	50					55				60					
Ala	Thr	Lys	Thr	Arg	Trp	Pro	Ala	Ser	Arg	Thr	Ala				
65					70					75					

<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 aaggagactc aatttgaact cagagtactg ggaaaagatt gtaacgaaac ctccattcttt
 120
 tttgaagctc ggagtaaaac tgcttgcaag caccctctgga agtgcagtgt ggaacatcat
 180
 acatttttta gaatgcaga aaatgaatcc aattcactgt caagaaaact cagcaagttt
 240
 ggatccatac gttataagca ccgctacagt ggcaggacag ctttgcaaat gagccgagat
 300
 ctttctattc agcttccccg gcctgatcag aatgtgacaa gaagtcaag caagacttac
 360

cctaagcgaa tagcacaaac acagccagct gaatcaaaca ccatcagtag gataactgca
 420
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa
 480
 agctttaaga aagcaaaaga tgaatatagc cctgataccc aaagaagcaa atctcatgca
 540
 ccgtgggaag aaaatggccc ccagagtggga ctctacaatt ctcccagtga tcgcaactaa
 600
 tcgccaagt tcctctacac gcgtgcgga aacccctcct gtggaagtga caatgattct
 660
 gtacagcctg tgaggaggag gaaagcccat aacagtgggt aagattcaga tcttaagcaa
 720
 aggaggagg caggttcacg ctgtaacacc agcagtggta gtgaatcaga aaattcta
 780
 agagaacacc ggaataagag aaacagaata cggcaggaga atgatatggt tgattcagcg
 840
 cctcagtggg aagctgtatt aaggagacaa aaggaaaaaa accaagccga cccaacaac
 900
 aggcgatcca gacacagatc tcgttcgaga agcccgata tccaagcaaa agaaggtta
 960
 tggaagcaca tcaaaaaaga acttgtggat ccatccggat tgtccgaaga acaattaaaa
 1020
 gagattccat acactaaaa agagtgcgtg ccttcagaa tcttctcacc aaagcttat
 1080
 tagtgcttga cacaaggtga cccaatccgc atcaggcatt ctcatcgc acgaagttac
 1140
 cgccagatc gcaggtccca gtgttcagat ggggagcgt cagttctctc ggaagtgaat
 1200
 tcaaaaacag atctgttacc accacttccg gtgacccatt ctccggatgc tcagggttct
 1260
 ggggatgcta cagttcatca gagaagaat ggtctctaa atagcctgat ggaagaaaaa
 1320
 cctcagacat ctacaacaa cctggctgga aaacacacag caaaaacaat aaaactata
 1380
 caagcttccc gcctcaagac agagacttga tcctgatgaa gggtaagggt taggggtggg
 1440
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 1449

<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

Tyr	Lys	Asn	Lys	Lys	Gln	Val	Gly	Lys	Tyr	Phe	Trp	Pro	Arg	Ile	Thr
1				5					10					15	
Lys	Val	His	Phe	Lys	Glu	Thr	Gln	Phe	Glu	Leu	Arg	Val	Leu	Gly	Lys
		20						25				30			
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
		35				40						45			
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
		50			55					60					
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

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65          70          75          80
Gly Ser Ile Arg Tyr Lys His Arg Tyr Ser Gly Arg Thr Ala Leu Gln
      85          90
Met Ser Arg Asp Leu Ser Ile Gln Leu Pro Arg Pro Asp Gln Asn Val
      100          105          110
Thr Arg Ser Arg Ser Lys Thr Tyr Pro Lys Arg Ile Ala Gln Thr Gln
      115          120          125
Pro Ala Glu Ser Asn Thr Ile Ser Arg Ile Thr Ala Asn Met Glu Asn
      130          135          140
Gly Glu Asn Glu Gly Thr Ile Lys Ile Ile Ala Pro Ser Pro Val Lys
145          150          155          160
Ser Phe Lys Lys Ala Lys Asn Glu Asn Ser Pro Asp Thr Gln Arg Ser
      165          170          175
Lys Ser His Ala Pro Trp Glu Glu Asn Gly Pro Gln Ser Gly Leu Tyr
      180          185          190
Asn Ser Pro Ser Asp Arg Thr Lys Ser Pro Lys Phe Pro Tyr Thr Arg
      195          200          205
Arg Arg Asn Pro Ser Cys Gly Ser Asp Asn Asp Ser Val Gln Pro Val
      210          215          220
Arg Arg Arg Lys Ala His Asn Ser Gly Glu Asp Ser Asp Leu Lys Gln
      225          230          235          240
Arg Arg Arg Ser Arg Ser Arg Cys Asn Thr Ser Ser Gly Ser Glu Ser
      245          250          255
Glu Asn Ser Asn Arg Glu His Arg Lys Lys Arg Asn Arg Ile Arg Gln
      260          265          270
Glu Asn Asp Met Val Asp Ser Ala Pro Gln Trp Glu Ala Val Leu Arg
      275          280          285
Arg Gln Lys Glu Lys Asn Gln Ala Asp Pro Asn Asn Arg Arg Ser Arg
      290          295          300
His Arg Ser Arg Ser Arg Ser Pro Asp Ile Gln Ala Lys Glu Glu Leu
      305          310          315          320
Trp Lys His Ile Gln Lys Glu Leu Val Asp Pro Ser Gly Leu Ser Glu
      325          330          335
Glu Gln Leu Lys Glu Ile Pro Tyr Thr Lys Ile Glu
      340          345

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<210> 3861

<211> 748

<212> DNA

<213> Homo sapiens

<400> 3861

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gccaccatgt cgaggagacaa acttctgagc gaactcggtt ataagctggg ccgcacaatt
120
ggagaggggca gctactccaa ggtgaagggt gccacatcca agaagtacaa gggtagcgtg
180
gccatcaagg tggtaggaccg gcggcgagcg ccccggaact tcgtcaacaa gtctctgccg
240
cgagagctgt ccatactgcg gggcgtagca caccgcgaca tcgtgcacgt ctctcagttc
300
atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggccgccac cgacctgctg
360

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caagccgtgc agcgcacagg gcgcaccccc ggagttcagg cgcgcgacct ctttcgcag
 420
 atcgccggcg ccggtgcgcta cctgcacgat catcacctgg tgcaccgcga cctcaagtgc
 480
 gaaaaacgtgc tgcgtgagccc ggacgagcgc cgcgtcaagc tcaccgactt cggtcttcggc
 540
 cggcaggccc atgggtaccc agacctgagc accacctact gcggctcagc cgtacgcgtc
 600
 acccgagtca tgcattttctt gagcacctac tgtctgccag gccccagagc tcatggcgaa
 660
 gagacttggg cccatccctg ccgaaaacga gacaattgaa aagtcagta aaataaaaga
 720
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 748

<210> 3862

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3862

Met	Ser	Gly	Asp	Lys	Leu	Leu	Ser	Glu	Leu	Gly	Tyr	Lys	Leu	Gly	Arg
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Thr	Ile	Gly	Glu	Gly	Ser	Tyr	Ser	Lys	Val	Lys	Val	Ala	Thr	Ser	Lys
			20					25				30			
Lys	Tyr	Lys	Gly	Thr	Val	Ala	Ile	Lys	Val	Val	Asp	Arg	Arg	Arg	Ala
			35				40				45				
Pro	Pro	Asp	Phe	Val	Asn	Lys	Phe	Leu	Pro	Arg	Glu	Leu	Ser	Ile	Leu
			50			55				60					
Arg	Gly	Val	Arg	His	Pro	His	Ile	Val	His	Val	Phe	Glu	Phe	Ile	Glu
65				70					75				80		
Val	Cys	Asn	Gly	Lys	Leu	Tyr	Ile	Val	Met	Glu	Ala	Ala	Ala	Thr	Asp
			85					90				95			
Leu	Leu	Gln	Ala	Val	Gln	Arg	Asn	Gly	Arg	Ile	Pro	Gly	Val	Gln	Ala
			100				105					110			
Arg	Asp	Leu	Phe	Ala	Gln	Ile	Ala	Gly	Ala	Val	Arg	Tyr	Leu	His	Asp
			115			120					125				
His	His	Leu	Val	His	Arg	Asp	Leu	Lys	Cys	Glu	Asn	Val	Leu	Leu	Ser
			130			135				140					
Pro	Asp	Glu	Arg	Arg	Val	Lys	Leu	Thr	Asp	Phe	Gly	Phe	Gly	Arg	Gln
145				150					155				160		
Ala	His	Gly	Tyr	Pro	Asp	Leu	Ser	Thr	Thr	Tyr	Cys	Gly	Ser	Ala	Val
			165					170					175		
Arg	Val	Thr	Arg	Val	Met	His	Phe	Leu	Ser	Thr	Tyr	Cys	Leu	Pro	Gly
			180					185				190			
Pro	Arg	Ala	His	Gly	Glu	Glu	Thr	Trp	Ala	His	Pro	Cys	Arg	Lys	Arg
			195			200					205				

Asp Asn
 210

<210> 3863

<211> 341

<212> DNA

<213> Homo sapiens

<400> 3863

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 120
 agttttgtctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cagcagggttc
 180
 ttctgggtcga ggctccccga gaaccatctg gccatgggct ggccagccag ttctgcagtc
 240
 gtccaggctg acgggtacatt ccaggctagc cctcctatca taatcgaatc tgagtagatt
 300
 tttatcaatc gcttgggaca agccattgaa ttttcggaga g
 341

<210> 3864

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3864

Met Ala Cys Pro Lys Arg Leu Ile Lys Ile Tyr Ser Asp Ser Ile Met
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 Ile Gly Trp Leu Ala Trp Asn Val Pro Ser Ala Trp Thr Leu Arg Glu
 20 25 30
 Leu Gly Cys Gln Pro Met Ala Arg Trp Phe Ser Gly Ser Leu Asp Gln
 35 40 45
 Lys Asn Leu Val Glu Ile Ser His Thr Val Phe Phe Pro Glu Ser Gln
 50 55 60
 Leu Arg Ala Lys Leu Lys Cys Pro Gly Gly Ser Cys Thr Pro Gly Leu
 65 70 75 80
 Lys Lys Ile Gly Ser Leu Lys Val Ser Cys Glu Glu Phe Leu Leu Met
 85 90 95
 Gly Leu Arg Tyr Gln His Leu Asp Pro Pro Ser Arg
 100 105

<210> 3865

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3865

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 120
 gagacctatg tgaagccac ttaattttct gaaacttcac atcatgtacc ttcattgtaa
 180
 tattctgaca cttgtttcat gcagccatag cagtcaaac tttaaatttt tagtcagact
 240
 ttgctcacia ggttttcagga taattaatac aaatgggttg ggccagccat cacacagcag
 300
 tctcctattt acttcactac aactacagct ttcattcttc attacattac tttttctgag
 360

tagtctgggt caaatagtac aaactgaata ttccttaacc aaaatgcttg gaagtaggcc
 420
 gggagcagcg gctcaccct gtaatcccg cattttggga ggccaaagca gacagatcac
 480
 tcaagggtcag ca
 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 20 25 30
 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 120
 ctggacagtg caaagcgatc ggaggacagg gagaaggagg ctctgattga ggagctctta
 180
 caggcaaaa aggatcttca agatctgctg attgccaaa aggagcaaga agacctcttg
 240
 agaaaagcag agcgtgaact caccgccctg aaggaggccc tgaaagaaga ggtttccagg
 300
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca gccctgagg
 360
 gagagtgtgg aagaagcaac caagaatgtc gaggtcttgg cgagcaggag caacacttca
 420
 gagcaagacc aggcggggac tgaatgcgc gtgaagcttc tcaggaggga gaatgagaag
 480
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 540
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 600

cgacagtttag aggaggccct tgtgcacgcc agaaaggaag aaaaagaagc tgtgtcacgcc
 660
 agaagggccc tggagaatga actggaggct gctcagggaa atctgagtca gactaccagg
 720
 gagcagaagc agttgtctga gaagctcaaa gaggagagtg agcagaagga gcagctaaga
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 900
 cagctggatg agtataagga gaaaaaccgc agggagctcg cagaaatgca aagacagttg
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<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

Thr	Arg	Glu	Gly	Glu	Leu	Arg	Lys	Asn	Leu	Glu	Glu	Leu	Phe	Gln	Val
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Lys	Met	Glu	Arg	Glu	Gln	His	Gln	Thr	Glu	Ile	Arg	Asp	Leu	Gln	Asp
			20					25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
		35					40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
		50			55						60				
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
65				70					75					80	
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
				85				90						95	
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
			100					105					110		
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
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Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
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Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
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Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Arg	Val	Ala	Gln	Leu	Gln
			165					170						175	
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
		180						185					190		
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
		195					200						205		
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
		210					215					220			
Glu	Asn	Glu	Leu	Glu	Ala	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln
225				230						235				240	
Glu	Gln	Lys	Gln	Leu	Ser	Glu	Lys	Leu	Lys	Glu	Glu	Ser	Glu	Gln	Lys

245										250					255				
Glu	Gln	Leu	Arg	Arg	Leu	Lys	Asn	Glu	Met	Glu	Asn	Glu	Arg	Arg	Trp	His			
260										265					270				
Leu	Gly	Lys	Thr	Ile	Glu	Lys	Leu	Gln	Lys	Glu	Met	Ala	Asp	Ile	Val				
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Glu	Ala	Ser	Arg	Thr	Ser	Thr	Leu	Glu	Leu	Gln	Asn	Gln	Leu	Asp	Glu				
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Tyr	Lys	Glu	Lys	Asn	Arg	Arg	Glu	Leu	Ala	Glu	Met	Gln	Arg	Gln	Leu				
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Lys	Glu	Lys	Thr	Leu	Glu	Ala	Glu	Lys	Ser	Arg	Leu	Thr	Ala	Met	Lys				
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<210> 3869

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3869

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<210> 3870
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 <212> PRT
 <213> Homo sapiens

<400> 3870
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 35 40 45
 Pro Gly Trp Gly Thr Val Cys Gly His Glu Ala Arg Pro Pro Pro Ala
 50 55 60
 Pro Leu Pro Arg Gly Ser Ile Pro Leu His Phe Trp Asn Val Cys
 65 70 75 80
 Ala Ser Met Met Phe Val Tyr Leu Arg His Leu Lys Ile Tyr Phe Arg
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<210> 3871
 <211> 473
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 <213> Homo sapiens

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 360
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<210> 3872

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3872

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 Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser
 35 40 45
 Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys
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 Asp Leu
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<210> 3873

<211> 869

<212> DNA

<213> Homo sapiens

<400> 3873

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<210> 3874

<211> 289

<212> PRT

<213> Homo sapiens

<400> 3874

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Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala
          35           40           45
Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser
          50           55           60
Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu
65           70           75           80
Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Arg Ala Val Ala
          85           90           95
Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
          100          105          110
Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
          115          120          125
Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
          130          135          140
Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln
145           150           155           160
Asp Gly Ser Ser Pro Leu His Val Ala Leu His Gly Arg Ala Asp
          165          170          175
Leu Ile Arg Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
          180          185          190
Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
          195          200          205
Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
          210          215          220
Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
225           230           235           240Glu Leu
Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
          245          250          255
Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
          260          265          270
His Val Phe Val Val Glu Leu Leu Leu His Gly Ala Ser Val Arg
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<210> 3875

<211> 2640

<212> DNA

<213> Homo sapiens

<400> 3875

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120

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<210> 3876

<211> 824

<212> PRT

<213> Homo sapiens

<400> 3876

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 35 40 45
 Pro Pro Lys Glu Glu Glu Leu Arg Ala Ala Val Glu Val Leu Arg Gly
 50 55 60
 His Gly Leu His Ser Val Leu Glu Glu Trp Phe Val Glu Val Leu Gln
 65 70 75 80
 Asn Asp Leu Gln Ala Asn Ile Ser Pro Glu Phe Trp Asn Ala Ile Ser
 85 90 95
 Gln Cys Glu Asn Ser Ala Asp Glu Pro Gln Cys Leu Leu Leu Leu Leu
 100 105 110
 Asp Ala Phe Gly Leu Leu Glu Ser Arg Leu Asp Pro Tyr Leu Arg Ser
 115 120 125
 Leu Glu Leu Leu Glu Lys Trp Thr Arg Leu Gly Leu Leu Met Gly Thr

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Leu Phe Phe Ser Thr Pro Arg Thr Phe Gln Glu Met Ile Gln Arg Leu					
	165		170		175
Tyr Gly Cys Phe Leu Arg Val Tyr Met Gln Ser Lys Arg Lys Gly Glu					
	180		185		190
Gly Gly Thr Asp Pro Glu Leu Glu Gly Glu Leu Asp Ser Arg Tyr Ala					
	195		200		205
Arg Arg Arg Tyr Tyr Arg Leu Leu Gln Ser Pro Leu Cys Ala Gly Cys					
	210		215		220
Ser Ser Asp Lys Gln Gln Cys Trp Cys Arg Gln Ala Leu Glu Gln Phe					
225		230		235	240
His Gln Leu Ser Gln Val Leu His Arg Leu Ser Leu Leu Glu Arg Val					
	245		250		255
Ser Ala Glu Ala Val Thr Thr Thr Leu His Gln Val Thr Arg Glu Arg					
	260		265		270
Met Glu Asp Arg Cys Arg Gly Glu Tyr Glu Arg Ser Phe Leu Arg Glu					
	275		280		285
Phe His Arg Trp Ile Glu Arg Val Val Gly Trp Leu Gly Lys Val Phe					
	290		295		300
Leu Gln Asp Gly Pro Ala Arg Pro Ala Ser Pro Glu Ala Gly Asn Thr					
305		310		315	320
Leu Arg Arg Trp Arg Cys His Val Gln Arg Phe Phe Tyr Arg Ile Tyr					
	325		330		335
Ala Ser Leu Arg Ile Glu Glu Leu Phe Ser Ile Val Arg Asp Phe Pro					
	340		345		350
Asp Ser Arg Pro Ala Ile Glu Asp Leu Lys Tyr Cys Leu Glu Arg Thr					
	355		360		365
Asp Gln Arg Gln Gln Leu Leu Val Ser Leu Lys Ala Ala Leu Glu Thr					
	370		375		380
Arg Leu Leu His Pro Gly Val Asn Thr Cys Asp Ile Ile Thr Leu Tyr					
385		390		395	400
Ile Ser Ala Ile Lys Ala Leu Arg Val Leu Asp Pro Ser Met Val Ile					
	405		410		415
Leu Glu Val Ala Cys Glu Pro Ile Arg Arg Tyr Leu Arg Thr Arg Glu					
	420		425		430
Asp Thr Val Arg Gln Ile Val Ala Gly Leu Thr Gly Asp Ser Asp Gly					
	435		440		445
Thr Gly Asp Leu Ala Val Glu Leu Ser Lys Thr Asp Pro Ala Ser Leu					
	450		455		460
Glu Thr Gly Gln Asp Ser Glu Asp Asp Ser Gly Glu Pro Glu Asp Trp					
465		470		475	480
Val Pro Asp Pro Val Asp Ala Asp Pro Gly Lys Ser Ser Ser Lys Arg					
	485		490		495
Arg Ser Ser Asp Ile Ile Ser Leu Leu Val Ser Ile Tyr Gly Ser Lys					
	500		505		510
Asp Leu Phe Ile Asn Glu Tyr Arg Ser Leu Leu Ala Asp Arg Leu Leu					
	515		520		525
His Gln Phe Ser Phe Ser Pro Glu Arg Glu Ile Arg Asn Val Glu Leu					
	530		535		540
Leu Lys Leu Arg Phe Gly Glu Ala Pro Met His Phe Cys Glu Val Met					
545		550		555	560
Leu Lys Asp Met Ala Asp Ser Arg Arg Ile Asn Ala Asn Ile Arg Glu					

565 570 575
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 580 585 590
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 595 600 605
 Lys Leu Glu Val Pro Glu Asp Ile Arg Ala Ala Leu Glu Ala Tyr Cys
 610 615 620
 Lys Lys Tyr Glu Gln Leu Lys Ala Met Arg Thr Leu Ser Trp Lys His
 625 630 635 640
 Thr Leu Gly Leu Val Thr Met Asp Val Glu Leu Ala Asp Arg Thr Leu
 645 650 655
 Ser Val Ala Val Thr Pro Val Gln Ala Val Ile Leu Leu Tyr Phe Gln
 660 665 670
 Asp Gln Ala Ser Trp Thr Leu Glu Glu Leu Ser Lys Ala Val Lys Met
 675 680 685
 Pro Val Ala Leu Leu Arg Arg Arg Met Ser Val Trp Leu Gln Gln Gly
 690 695 700
 Val Leu Arg Glu Xaa Ser Pro Pro Ala Pro Ser Leu Ser Leu Arg Arg
 705 710 715 720
 Ser Gly Leu Arg Thr Gly Xaa Asn Met Val Leu Ile Asp Ser Asp Asp
 725 730 735
 Glu Ser Asp Ser Gly Met Ala Ser Gln Ala Asp Gln Lys Glu Glu Glu
 740 745 750
 Leu Leu Leu Phe Trp Thr Tyr Ile Gln Ala Met Leu Thr Asn Leu Glu
 755 760 765
 Ser Leu Ser Leu Asp Arg Ile Tyr Asn Met Leu Arg Met Phe Val Val
 770 775 780
 Thr Gly Pro Ala Leu Ala Glu Ile Asp Leu Gln Glu Leu Gln Gly Tyr
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<210> 3877

<211> 1112

<212> DNA

<213> Homo sapiens

<400> 3877

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<210> 3878

<211> 370

<212> PRT

<213> Homo sapiens

<400> 3878

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      20             25             30
His Ala Lys Lys Ala Asn Gly Pro Asn Tyr Ile Gln Pro Gln Lys Arg
      35             40             45
Gln Thr Thr Phe Glu Ser Gln Asp Arg Lys Ala Val Ser Pro Ser Ser
      50             55             60
Ser Glu Lys Arg Ser Lys Asn Pro Ile Ser Arg Pro Leu Glu Gly Lys
      65             70             75             80
Lys Ser Leu Ser Leu Ser Ala Lys Thr His Asn Ile Gly Phe Asp Lys
      85             90             95
Asp Ser Cys His Ser Thr Thr Lys Thr Glu Ala Ser Gln Glu Glu Arg
      100            105            110
Ser Asp Ser Ser Gly Leu Thr Ser Leu Lys Lys Ser Pro Lys Val Ser
      115            120            125
Ser Lys Asp Thr Arg Glu Ile Lys Thr Asp Phe Ser Leu Ser Ile Ser
      130            135            140
Asn Ser Ser Asp Val Ser Ala Lys Asp Lys His Ala Glu Asp Asn Glu
      145            150            155            160
Lys Arg Leu Ala Ala Leu Glu Ala Arg Gln Lys Ala Lys Glu Val Gln
      165            170            175
Lys Lys Leu Val His Asn Ala Leu Ala Asn Leu Asp Gly His Pro Glu

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Asp Lys Pro Thr His Ile Ile Phe Gly Ser Asp Ser Glu Cys Glu Thr
      195              200              205
Glu Glu Thr Ser Thr Gln Glu Gln Ser His Pro Gly Glu Glu Trp Val
      210              215              220
Lys Glu Ser Met Gly Lys Thr Ser Gly Lys Leu Phe Asp Ser Ser Asp
      225              230              235              240
Asp Glu Glu Ser Asp Ser Glu Asp Asp Ser Asn Arg Phe Lys Ile Lys
      245              250              255
Pro Gln Phe Glu Gly Arg Ala Gly Gln Lys Leu Met Asp Leu Gln Ser
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<212> DNA

<213> Homo sapiens

<400> 3879

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 Val Asp Val Pro Val Glu Lys Leu Ala Ala Met Pro Ala Leu Arg Ser
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Thr Leu Thr Pro Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met
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<213> Homo sapiens

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<210> 3888

<211> 1230

<212> PRT

<213> Homo sapiens

<400> 3888

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 Glu Leu Gln Lys Asp Ser Ile Lys Leu Asp Asp Asp Ser Glu Arg Lys
 35 40 45
 Val Val Lys Met Ile Leu Lys Leu Leu Glu Asp Lys Asn Gly Glu Val
 50 55 60
 Gln Asn Leu Ala Val Lys Cys Leu Gly Pro Leu Val Ser Lys Val Lys
 65 70 75 80
 Glu Tyr Gln Val Glu Thr Ile Val Asp Thr Leu Cys Thr Asn Met Leu
 85 90 95
 Ser Asp Lys Glu Gln Leu Arg Asp Ile Ser Ser Ile Gly Leu Lys Thr
 100 105 110
 Val Ile Gly Glu Leu Pro Pro Ala Ser Ser Gly Ser Ala Leu Ala Ala
 115 120 125
 Asn Val Cys Lys Lys Ile Thr Gly Arg Leu Thr Ser Ala Ile Ala Lys
 130 135 140
 Gln Glu Asp Val Ser Val Gln Leu Glu Ala Leu Asp Ile Met Ala Asp
 145 150 155 160
 Met Leu Ser Arg Gln Gly Gly Leu Leu Val Asn Phe His Pro Ser Ile

3035

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Arg	Leu	Thr	Thr	Val	Lys	Ala	Leu	Thr	Leu	Ile	Ala	Gly	Ser	Pro	Leu
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Lys	Ile	Asp	Leu	Arg	Pro	Val	Leu	Gly	Glu	Gly	Val	Pro	Ile	Leu	Ala
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Ser	Phe	Leu	Arg	Lys	Asn	Gln	Arg	Ala	Leu	Lys	Leu	Gly	Thr	Leu	Ser
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Lys	Val	Tyr	Pro	Ser	Ser	Leu	Ser	Lys	Ile	Ser	Gly	Ser	Ile	Leu	Asn
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Glu	Leu	Ile	Gly	Leu	Val	Arg	Ser	Pro	Leu	Leu	Gln	Gly	Gly	Ala	Leu
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Ser	Ala	Met	Leu	Asp	Phe	Phe	Gln	Ala	Leu	Val	Val	Thr	Gly	Thr	Asn
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Asn	Leu	Gly	Tyr	Met	Asp	Leu	Leu	Arg	Met	Leu	Thr	Gly	Pro	Val	Tyr
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Ser	Gln	Ser	Thr	Ala	Leu	Thr	His	Lys	Gln	Ser	Tyr	Tyr	Ser	Ile	Ala
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Lys	Cys	Val	Ala	Ala	Leu	Thr	Arg	Ala	Cys	Pro	Lys	Glu	Gly	Pro	Ala
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Val	Val	Gly	Gln	Phe	Ile	Gln	Asp	Val	Lys	Asn	Ser	Arg	Ser	Thr	Asp
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		850				855					860				
Phe	Ser	Ser	Pro	Ser	Glu	Glu	Val	Lys	Ser	Ala	Ala	Ser	Tyr	Ala	Leu
865					870					875				880	
Gly	Ser	Ile	Ser	Val	Gly	Asn	Leu	Pro	Glu	Tyr	Leu	Pro	Phe	Val	Leu
				885					890					895	
Gln	Glu	Ile	Thr	Ser	Gln	Pro	Lys	Arg	Gln	Tyr	Leu	Leu	Leu	His	Ser
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Leu	Lys	Glu	Ile	Ile	Ser	Ser	Ala	Ser	Val	Val	Gly	Leu	Lys	Pro	Tyr
		915					920					925			
Val	Glu	Asn	Ile	Trp	Ala	Leu	Leu	Leu	Lys	His	Cys	Glu	Cys	Ala	Glu
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Glu	Gly	Thr	Arg	Asn	Val	Val	Ala	Glu	Cys	Leu	Gly	Lys	Leu	Thr	Leu
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Gly	Ser	Ser	Tyr	Ala	Arg	Ser	Ser	Val	Val	Thr	Ala	Val	Lys	Phe	Thr
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Ile	Ser	Asp	His	Pro	Gln	Pro	Ile	Asp	Pro	Leu	Leu	Lys	Asn	Cys	Ile
		995					1000					1005			
Gly	Asp	Phe	Leu	Lys	Thr	Leu	Glu	Asp	Pro	Asp	Leu	Asn	Val	Arg	Arg
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Val	Ala	Leu	Val	Thr	Phe	Asn	Ser	Ala	Ala	His	Asn	Lys	Pro	Ser	Leu

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Lys Val Arg Lys	Glu Leu Ile Arg	Glu Val Glu Met Gly	Pro Phe Lys
	1060	1065	1070
His Thr Val Asp	Asp Gly Leu Asp	Ile Arg Lys Ala	Ala Phe Glu Cys
	1075	1080	1085
Met Tyr Thr Leu	Leu Asp Ser Cys	Leu Asp Arg Leu	Asp Ile Phe Glu
	1090	1095	1100
Phe Leu Asn His	Val Glu Asp Gly	Leu Lys Asp His	Tyr Asp Ile Lys
	1105	1110	1115
Met Leu Thr Phe	Leu Met Leu Val	Arg Leu Ser Thr	Leu Cys Pro Ser
	1125	1130	1135
Ala Val Leu Gln	Arg Leu Asp Arg	Leu Val Glu Pro	Leu Arg Ala Thr
	1140	1145	1150
Cys Thr Thr Lys	Val Lys Ala Asn	Ser Val Lys Gln	Glu Phe Glu Lys
	1155	1160	1165
Gln Asp Glu Leu	Lys Arg Ser Ala	Met Arg Ala Val	Ala Ala Leu Leu
	1170	1175	1180
Thr Ile Pro Glu	Ala Glu Lys Ser	Pro Leu Met Ser	Glu Phe Gln Ser
	1185	1190	1195
Gln Ile Ser Ser	Asn Pro Glu Leu	Ala Ala Ile Phe	Glu Ser Ile Gln
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<210> 3889

<211> 556

<212> DNA

<213> Homo sapiens

<400> 3889

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<210> 3890

<211> 101
 <212> PRT
 <213> Homo sapiens

<400> 3890
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 35 40 45
 Arg Lys Val Val Asp Pro Glu Thr Gly Arg Thr Arg Leu Ile Lys Gly
 50 55 60
 Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys Glu Arg His Arg Glu
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<210> 3891
 <211> 1687
 <212> DNA
 <213> Homo sapiens

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<210> 3892

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3892

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		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
Glu	Glu	Met	Glu	Glu	Ala	Asp	Lys	Leu	Leu	Trp	Ser	Val	Gln	Val	Asp
		50				55					60				
His	Gln	Leu	Phe	Ala	Leu	Glu	Lys	Leu	Asp	Val	Thr	Gly	Asn	Gly	His
		65			70					75				80	
Glu	Glu	Val	Val	Ala	Cys	Ala	Trp	Asp	Gly	Gln	Thr	Tyr	Ile	Ile	Asp
			85					90					95		
His	Asn	Arg	Thr	Val	Val	Arg	Phe	Gln	Val	Asp	Glu	Asn	Ile	Arg	Ala
			100				105					110			
Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
			115				120					125			
Leu	Val	Tyr	Val	Thr	Phe	Asn	Gln	Lys	Ile	Tyr	Val	Tyr	Trp	Glu	Val

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Gln	Leu	Glu	Arg	Met	Glu	Ser	Thr	Asn	Leu	Val	Lys	Leu	Leu	Glu	Thr
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Lys	Pro	Ser	Thr	Thr	Ala	Cys	Cys	Arg	Ser	Trp	Ala	Trp	Ile	Leu	Thr
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Thr	Ser	Leu													

<210> 3893

<211> 1591

<212> DNA

<213> Homo sapiens

<400> 3893

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 240
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 1200

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<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

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			20					25					30		
Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
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Asp	Asn	Ile	Lys	Val	Cys	Ser	Asn	Asp	Thr	Gly	Ser	Gly	Lys	Phe	Lys
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Cys	Val	Cys	Ile	Thr	Met	Arg	Val	Pro	Arg	Asn	Pro	Thr	Ile	Gly	Asp
	65				70				75					80	
Lys	Phe	Ala	Ser	Arg	His	Gly	Gln	Lys	Gly	Ile	Leu	Ser	Arg	Leu	Trp
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Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
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Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
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Ile	Glu	Ser	Met	Ala	Gly	Lys	Ser	Ala	Ala	Leu	His	Gly	Leu	Cys	His
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Asp	Ala	Thr	Pro	Phe	Ile	Phe	Ser	Glu	Glu	Asn	Ser	Ala	Leu	Glu	Tyr
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Phe	Gly	Glu	Met	Leu	Lys	Ala	Ala	Gly	Tyr	Asn	Phe	Tyr	Gly	Thr	Glu
			165					170						175	
Arg	Leu	Tyr	Ser	Gly	Ile	Ser	Gly	Leu	Glu	Leu	Glu	Ala	Asp	Ile	Phe
			180				185						190		
Ile	Gly	Val	Val	Tyr	Tyr	Gln	Arg	Leu	Arg	His	Met	Val	Ser	Asp	Lys
		195					200					205			
Phe	Gln	Val	Arg	Thr	Thr	Gly	Ala	Arg	Asp	Arg	Val	Thr	Asn	Gln	Pro
		210				215					220				
Ile	Gly	Gly	Arg	Asn	Val	Gln	Gly	Gly	Ile	Arg	Phe	Gly	Glu	Met	Glu
	225				230				235					240	
Arg	Asp	Ala	Leu	Leu	Ala	His	Gly	Thr	Ser	Phe	Leu	Leu	His	Asp	Arg
			245						250					255	
Leu	Phe	Asn	Cys	Ser	Asp	Arg	Ser	Val	Ala	His	Val	Cys	Val	Lys	Cys

260										265										270																																							
Gly	Ser	Leu	Leu	Ser	Pro	Leu	Leu	Glu	Lys	Pro	Pro	Pro	Ser	Trp	Ser					Gly	Ser	Leu	Leu	Ser	Pro	Leu	Leu	Glu	Lys	Pro	Pro	Pro	Ser	Trp	Ser					Gly	Ser	Leu	Leu	Ser	Pro	Leu	Leu	Glu	Lys	Pro	Pro	Pro	Ser	Trp	Ser				
275										280										285																																							
Ala	Met	Arg	Asn	Arg	Lys	Tyr	Asn	Cys	Thr	Leu	Cys	Ser	Arg	Ser	Asp					Ala	Met	Arg	Asn	Arg	Lys	Tyr	Asn	Cys	Thr	Leu	Cys	Ser	Arg	Ser	Asp					Ala	Met	Arg	Asn	Arg	Lys	Tyr	Asn	Cys	Thr	Leu	Cys	Ser	Arg	Ser	Asp				
290										295										300																																							
Thr	Ile	Asp	Thr	Val	Ser	Val	Pro	Tyr	Val	Phe	Arg	Tyr	Phe	Val	Ala					Thr	Ile	Asp	Thr	Val	Ser	Val	Pro	Tyr	Val	Phe	Arg	Tyr	Phe	Val	Ala					Thr	Ile	Asp	Thr	Val	Ser	Val	Pro	Tyr	Val	Phe	Arg	Tyr	Phe	Val	Ala				
305										310										315																																							
Glu	Leu	Ala	Ala	Met	Asn	Ile	Lys	Val	Lys	Leu	Asp	Val	Val							Glu	Leu	Ala	Ala	Met	Asn	Ile	Lys	Val	Lys	Leu	Asp	Val	Val						Glu	Leu	Ala	Ala	Met	Asn	Ile	Lys	Val	Lys	Leu	Asp	Val	Val							
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<210> 3895

<211> 1227

<212> DNA

<213> Homo sapiens

<400> 3895

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120	gtgaggaggc	aagagcagcc	cagcatttag	agtacatctc	cgatttcaag
180	attagaaaaa	acacctacag	aacattggat	agcctggagc	agaccattaa
240	aatacaatca	gtgaaatgag	tcccaaagcc	ctagttgata	cctcatgttc
300	gattctgttg	caagttcatc	ccacatagcc	caagaggcct	ctccccgacc
360	ccggatgaag	gtcccactgc	cctagagccc	cctacgtcga	taccttcagc
420	ggctccagcg	gggccccaca	gacgagcagg	atgcctgtcc	ccatgagtgc
480	cccggaaccc	tggacaaacc	cggaagcagc	tccaaactgc	aggatccccg
540	caggctaatg	gaagtgctaa	gaaaatctgt	ggggacttta	agcctacttc
600	cctgcttcta	agattccagc	cctttctccc	agctctggga	aaagcgttgc
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720	aacccctctca	gcccccaaac	aggaccacct	gtcactctgc	cctccctcat
780	tctaattggct	ctttgaagtt	tcagagccctc	actcatacag	gtaaagggtca
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960	ctccccagcc	tcaccagcta	caaggcacag	aatggaagtt	caagcaaaagc
1020	acagcaaaag	aaacctctta	aagggtcaaat	cctattaggc	acaagtcgga
1080	aaaaaaaatta	acagtctaca	acaactgttt	tcacaagaga	atgtaacata
1140					ttgctgtatc

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 1227

<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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Leu	Lys	Gln	His	Lys	Glu	Ala	Lys	Arg	Phe	Glu	Ile	Ala	Arg
		20					25					30	Ser
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Pro
		35				40					45		Ser
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg
	50				55					60			Lys
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln
65				70					75				80
Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr
			85					90				95	Ser
Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala
		100					105					110	Gln
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr
	115					120					125		Ala
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser
	130				135					140			Ser
Ala	Pro	Gln	Thr	Ser	Arg	Met	Pro	Val	Pro	Met	Ser	Ala	Lys
145				150					155				160
Pro	Gly	Thr	Leu	Asp	Lys	Pro	Gly	Lys	Gln	Ser	Lys	Leu	Gln
		165						170				175	Asp
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly
	180					185						190	Gly
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro
	195					200					205		Ala
Ser	Pro	Ser	Ser	Gly	Lys	Ser	Ser	Ser	Leu	Pro	Ser	Ser	Ser
210				215						220			Gly
Ser	Ser	Asn	Leu	Pro	Asn	Pro	Pro	Ala	Thr	Lys	Pro	Ser	Ile
225				230						235			240
Asn	Pro	Leu	Ser	Pro	Gln	Thr	Gly	Pro	Pro	Ala	His	Ser	Ala
		245							250				255
Ile	Pro	Ser	Val	Ser	Asn	Gly	Ser	Leu	Lys	Phe	Gln	Ser	Leu
	260						265					270	Thr
Thr	Gly	Lys	Gly	His	His	Leu	Ser	Phe	Ser	Pro	Gln	Ser	Gln
	275					280					285		Asn
Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser
	290				295					300			Ala
Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr
305				310						315			Ile
Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser
			325					330					Lys
Ala	Thr	Pro	Ser	Thr	Ala	Lys	Glu	Thr	Ser				

340

345

<210> 3897
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 3897
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 120
 cttctgggca cccacgcttt gtccatgaat ggaaagcaat gctgacggct gcccaatgtg
 180
 tccaggacgt ttctgaaact cctgttccct tccccctccc tctctctgtc ccaactgtcca
 240
 cctcagtgaac ctctctctct cgtggctctc accccacact ctgccactgc cacattttcc
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 366

<210> 3898
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 3898
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 Met Ala Gly Arg Pro Gly Leu Leu His Trp Leu Leu Ala Ser Ser Gly
 20 25 30
 His Pro Arg Phe Val His Glu Trp Lys Ala Met Leu Thr Ala Ala Gln
 35 40 45
 Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu
 50 55 60
 Ser Val Pro Leu Ser Thr Ser Val Thr Ser Ser Leu Arg Gly Ser His
 65 70 75 80
 Pro Thr Leu Cys His Cys His Ile Phe Leu Cys Ala Gln Pro Leu Pro
 85 90 95
 Pro Pro Glu Thr Phe Leu Glu Ile Ser Lys Cys Asn Ser Arg Ser
 100 105 110

<210> 3899
 <211> 1092
 <212> DNA
 <213> Homo sapiens

<400> 3899
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 120

accttccgga aaatggcggc tgccaggccc agcctggggc gagtctctccc aggatcctct
 180
 gtctgtgtcc tgtgtgacat gcaggagaag ttccgccaca acatcgcceta ctteccacag
 240
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 300
 ctgacggagc agtaccacaca aggcctgggc ccacagggtc ccgagctggg gactngaggg
 360
 ccttcggccg ctggccaaga cctgcttcag catggtgect gcctgcagca ggagctggac
 420
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 480
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 540
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 600
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 660
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 780
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 900
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 960
 caagatggag gcggggctcg gccccgggccc acttcacggg gcgggaaggg gaggggaaga
 1020
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 1080
 aaaaaaaaaa aa
 1092

<210> 3900

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3900

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 Pro Ser Glu Arg Arg Glu Val Arg Val Pro Pro Pro His Leu Gln Arg
 20 25 30
 Gly Arg Ser Gly Leu Glu Pro Gly Thr Phe Arg Lys Met Ala Ala Ala
 35 40 45
 Arg Pro Ser Leu Gly Arg Val Leu Pro Gly Ser Ser Val Leu Phe Leu
 50 55 60
 Cys Asp Met Gln Glu Lys Phe Arg His Asn Ile Ala Tyr Phe Pro Gln
 65 70 75 80
 Ile Val Ser Val Ala Ala Arg Met Leu Lys Val Ala Arg Leu Leu Glu
 85 90 95
 Val Pro Val Met Leu Thr Glu Gln Tyr Pro Gln Gly Leu Gly Pro Thr

```

      100              105              110
Val Pro Glu Leu Gly Thr Xaa Gly Pro Ser Ala Ala Gly Gln Asp Leu
      115              120              125
Leu Gln His Gly Ala Cys Leu Gln Gln Glu Leu Asp Ser Arg Pro Gln
      130              135              140
Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu
      145              150              155              160
Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val
      165              170              175
Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu
      180              185              190
Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu
      195              200              205
Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile
      210              215              220
Gln Lys Leu Ile Lys Glu Pro Ala Pro Asp Ser Gly Leu Leu Gly Leu
      225              230              235              240
Phe Gln Gly Gln Asn Ser Leu Leu His
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<210> 3901

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 3901

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120
ttcttctctg aggtgtacca caccttcctc aggattgcag agaccagggt aggtgacgcc
180
gtcctggggc tgggtctgat gctgctgctg ctggtgctga agctgatgag ggaccacgtg
240
cctcccgctc accccgagat gccccctggg gtgcgggtca gccgtgggct ggtctgggct
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gccaacgacag ctgcgaacgc cctgggtggtc tccttcgcag ccctggttgc gtactccttc
360
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420
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480
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540
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600
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660
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720
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780
cccaagtctg cctggctgct cgtcatcatc atggccgtgg ccccgctggt cgacaccaag
840

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atcttcagga cgctctggcg tgtaagagg ctggacctgc tgcacctgtg cgtgaccttc
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 960
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 1080
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 1287

<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

Met Leu Leu Leu Val Leu Lys Leu Met Arg Asp His Val Pro Pro
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 20 25 30
 Trp Ala Ala Thr Thr Ala Arg Asn Ala Leu Val Val Ser Phe Ala Ala
 35 40 45
 Leu Val Ala Tyr Ser Phe Glu Val Thr Gly Tyr Gln Pro Phe Ile Leu
 50 55 60
 Thr Gly Glu Thr Ala Glu Gly Leu Pro Pro Val Arg Ile Pro Pro Phe
 65 70 75 80
 Ser Val Thr Thr Ala Asn Gly Thr Ile Ser Phe Thr Glu Met Val Gln
 85 90 95
 Asp Met Gly Ala Gly Leu Ala Val Val Pro Leu Met Gly Leu Leu Glu
 100 105 110
 Ser Ile Ala Val Ala Lys Ala Phe Ala Ser Gln Asn Asn Tyr Arg Ile
 115 120 125
 Asp Ala Asn Gln Glu Leu Leu Ala Ile Gly Leu Thr Asn Met Leu Gly
 130 135 140
 Ser Leu Val Ser Ser Tyr Pro Val Thr Gly Ser Phe Gly Arg Thr Ala
 145 150 155 160
 Val Asn Ala Gln Ser Gly Val Cys Thr Pro Ala Gly Gly Leu Val Thr
 165 170 175
 Gly Val Leu Val Leu Leu Ser Leu Asp Tyr Leu Thr Ser Leu Phe Tyr
 180 185 190
 Tyr Ile Pro Lys Ser Ala Leu Ala Ala Val Ile Ile Met Ala Val Ala
 195 200 205
 Pro Leu Phe Asp Thr Lys Ile Phe Arg Thr Leu Trp Arg Val Lys Arg
 210 215 220
 Leu Asp Leu Leu Pro Leu Cys Val Thr Phe Leu Leu Cys Phe Trp Glu
 225 230 235 240
 Val Gln Tyr Gly Ile Leu Ala Gly Ala Leu Val Ser Leu Leu Met Leu

```

                245                250                255
Leu His Ser Ala Ala Arg Pro Glu Thr Lys Val Ser Glu Gly Pro Val
                260                265                270
Leu Val Leu Gln Pro Ala Ser Gly Leu Ser Phe Pro Val Leu Cys Pro
                275                280                285
Pro Leu Pro Ala Val Gln Asp Pro Lys Thr Leu Ser Pro Thr Leu Ser
                290                295                300
Ser Pro Gln Gly Cys Arg His Leu
305                310

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<210> 3903

<211> 598

<212> DNA

<213> Homo sapiens

<400> 3903

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120
gccagtctgg cctcgggtgcg ggcctttgcc actgcctttc tgagctctga gccacggttg
180
gacatcctca tccacaatgc cggtatcagt tcctgtggcc ggaccctga ggcgtttaac
240
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360
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598

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<210> 3904

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3904

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20                25                30
Val Ile Phe Met Ala Leu Asp Leu Ala Ser Leu Ala Ser Val Arg Ala
35                40                45
Phe Ala Thr Ala Phe Leu Ser Ser Glu Pro Arg Leu Asp Ile Leu Ile
50                55                60
His Asn Ala Gly Ile Ser Ser Cys Gly Arg Thr Arg Glu Ala Phe Asn
65                70                75                80
Leu Leu Leu Arg Val Asn His Ile Gly Pro Phe Leu Leu Thr His Leu

```

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      85              90              95
Leu Leu Pro Cys Leu Lys Ala Cys Ala Pro Ser Arg Val Val Val Val
100              105              110
Ala Ser Ala Ala His Cys Arg Gly Arg Leu Asp Phe Lys Arg Leu Asp
115              120              125
Arg Pro Val Val Leu Ala Ala Gly Ala Ala Ala Tyr Ala Asp Thr Lys
130              135              140
Leu Ala Asn Val Leu Phe Ala Arg Glu Leu Ala Asn Gln Leu Glu Ala
145              150              155              160
Thr Gly Val Thr Cys Tyr Ala Ala His Pro Gly Pro Val Asn Ser Glu
165              170              175
Leu Phe Leu Arg His Val Pro Gly Trp Leu Arg Pro Leu Leu Arg Pro
180              185              190
Leu Ala Trp Leu Val Pro Arg
195

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<210> 3905

<211> 370

<212> DNA

<213> Homo sapiens

<400> 3905

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120
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240
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<210> 3906

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3906

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20     25     30
Asn Ile Gly Gly Asp Phe Asp Val Ala Thr Gly Gln Phe Arg Cys Arg
35     40     45
Val Pro Gly Ala Tyr Phe Phe Ser Phe Thr Ala Gly Lys Ala Pro His
50     55     60
Lys Ser Pro Ser Val Met Leu Val Arg Asn Arg Asp Glu Val Gln Ala
65     70     75     80
Leu Ala Phe Asp Glu Gln Arg Arg Pro Gly Ala Arg Arg Ala Ala Ser

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accttccggtt ggcaggtaga gctcaggaat ctgattgagc cagagcagtg caccttctgt
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1380
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<210> 3916

<211> 342

<212> PRT

<213> Homo sapiens

<400> 3916

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		20					25					30			
Ala	Ser	Thr	Asp	Ala	Val	Ser	Ala	Leu	Leu	Glu	Gln	Thr	Ala	Val	Glu
		35				40					45				
Leu	Glu	Lys	Arg	Gln	Glu	Gly	Arg	Ser	Ser	Thr	Gln	Thr	Leu	Glu	Asp
	50				55					60					
Ser	Trp	Arg	Tyr	Glu	Glu	Thr	Ser	Glu	Asn	Glu	Ala	Val	Ala	Glu	Glu
65				70					75				80		
Glu	Glu	Glu	Glu	Val	Glu	Glu	Glu	Gly	Glu	Glu	Asp	Val	Phe	Thr	Glu
			85					90				95			
Lys	Ala	Ser	Pro	Asp	Met	Asp	Gly	Tyr	Pro	Ala	Leu	Lys	Val	Asp	Lys
		100					105					110			
Glu	Thr	Asn	Thr	Glu	Thr	Pro	Ala	Pro	Ser	Pro	Thr	Val	Val	Arg	Pro
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Lys	Asp	Arg	Arg	Val	Gly	Thr	Pro	Ser	Gln	Gly	Pro	Phe	Leu	Arg	Gly
	130				135						140				
Ser	Thr	Ile	Ile	Arg	Ser	Lys	Thr	Phe	Ser	Pro	Gly	Pro	Gln	Ser	Gln
145				150					155				160		
Tyr	Val	Cys	Arg	Leu	Asn	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Ser
		165						170					175		
Lys	Lys	Pro	Pro	Phe	Val	Arg	Asn	Ser	Leu	Glu	Arg	Arg	Ser	Val	Arg
		180					185					190			
Met	Lys	Arg	Pro	Ser	Pro	Pro	Pro	Gln	Pro	Ser	Ser	Val	Lys	Ser	Leu
	195						200					205			
Arg	Ser	Glu	Arg	Leu	Ile	Arg	Thr	Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu
	210				215					220					
Gln	Ala	Thr	Arg	Thr	Trp	His	Ser	Gln	Leu	Thr	Gln	Glu	Ile	Ser	Val
225				230					235				240		
Leu	Lys	Glu	Leu	Lys	Glu	Gln	Leu	Glu	Gln	Ala	Lys	Ser	His	Gly	Glu
		245						250					255		
Lys	Glu	Leu	Pro	Gln	Trp	Leu	Arg	Glu	Asp	Glu	Arg	Phe	Arg	Leu	Leu
	260						265					270			
Leu	Arg	Met	Leu	Glu	Lys	Arg	Gln	Met	Asp	Arg	Ala	Glu	His	Lys	Gly
	275					280					285				
Glu	Leu	Gln	Thr	Asp	Lys	Met	Met	Arg	Ala	Ala	Ala	Lys	Asp	Val	His
	290					295				300					
Arg	Leu	Arg	Gly	Gln	Ser	Cys	Lys	Glu	Pro	Pro	Glu	Val	Gln	Ser	Phe
305				310					315				320		
Arg	Glu	Lys	Met	Ala	Phe	Phe	Thr	Arg	Pro	Arg	Met	Asn	Ile	Pro	Ala

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 <211> 597
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 180
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 360
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 420
 ccgaccatgc gtaagaagcg actactagac agaaaggatc tgctaaagtc agacagccca
 480
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 <213> Homo sapiens
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 20 25 30
 Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu
 35 40 45
 Met Glu Glu Val Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
 50 55 60
 Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
 65 70 75 80
 Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
 85 90 95
 Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Lys Ser Asp Ser
 100 105 110
 Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
 115 120 125
 Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

130 135 140
 Glu Thr Trp Asn Pro Phe Lys Leu
 145 150

 <210> 3919
 <211> 1278
 <212> DNA
 <213> Homo sapiens

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 180
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 780
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 1080
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<210> 3920

<211> 426

<212> PRT

<213> Homo sapiens

<400> 3920

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 20           25           30
Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
 35           40           45
Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
 50           55           60
Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
 65           70           75           80
Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Asp Lys Thr Glu Gln
 85           90           95
Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
100          105          110
Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
115          120          125
Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
130          135          140
Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
145          150          155          160
Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Leu Arg Glu Asp Asn
165          170          175
Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
180          185          190
Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
195          200          205
Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
210          215          220
Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
225          230          235          240
Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
245          250          255
Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
260          265          270
Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
275          280          285
Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
290          295          300
Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
305          310          315          320
Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
325          330          335
Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
340          345          350
Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
355          360          365
Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

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          370              375              380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser
385              390              395              400
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His
          405              410              415
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu
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<210> 3921
 <211> 413
 <212> DNA
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<400> 3921
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413

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<210> 3922
 <211> 126
 <212> PRT
 <213> Homo sapiens

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<400> 3922
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Arg Gln Pro Gly Pro Val Phe Val Gly Thr Arg Phe Gln Met Pro Leu
          20          25          30
Leu Leu Ala Ser Leu Val Thr Phe Ile His Ala Gly Pro Cys Phe Leu
35          40          45
Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
50          55          60
Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
65          70          75          80
Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
          85          90          95
Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala
100          105          110
His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile
115          120          125

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<210> 3923
 <211> 820

<212> DNA

<213> Homo sapiens

<400> 3923

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 720
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<210> 3924

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3924

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Lys	Pro	Leu	Val	Ala	Val	Asn	Thr	Arg	Leu	Ser	Gly	Gly	Gln	Val	Leu
			20					25					30		
Ser	Glu	Tyr	Thr	Gly	Pro	Thr	Ser	Ala	Asp	Leu	Asp	His	Phe	Pro	Ser
		35					40				45				
Val	Ser	Gln	Thr	Lys	Ala	Glu	Gln	Asp	Ser	Asp	Asn	Lys	Ser	Ser	Thr
		50				55				60					
Glu	Ile	Pro	Leu	Glu	Thr	Cys	Cys	Ser	Ser	Glu	Leu	Lys	Gly	Gly	Gly
65					70					75				80	
Ser	Gly	Thr	Ser	Leu	Glu	Arg	Glu	Gln	Phe	Glu	Gly	Leu	Gly	Ser	Thr
			85					90						95	
Pro	Asp	Ala	Lys	Leu	Asp	Lys	Thr	Cys	Ile	Ser	Arg	Ala	Met	Lys	Ile
			100					105						110	
Thr	Thr	Val	Asn	Ser	Val	Leu	Pro	Gln	Asn	Ser	Val	Leu	Gly	Gly	Val

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<210> 3926

<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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Leu	Ile	Cys	Ile	Leu	Thr	Phe	Gly	Ala	Ala	Ile	Phe	Leu	Trp	Leu	Ile
			20				25					30			
Thr	Arg	Pro	Gln	Pro	Val	Leu	Pro	Leu	Leu	Asp	Leu	Asn	Asn	Gln	Ser
		35					40				45				
Val	Gly	Ile	Glu	Gly	Gly	Ala	Arg	Lys	Gly	Val	Ser	Gln	Lys	Asn	Asn
	50					55				60					
Asp	Leu	Thr	Ser	Cys	Cys	Phe	Ser	Asp	Ala	Lys	Thr	Met	Tyr	Glu	Val
65					70				75					80	
Phe	Gln	Arg	Gly	Leu	Ala	Val	Ser	Asp	Asn	Gly	Pro	Cys	Leu	Gly	Tyr
			85					90					95		
Arg	Lys	Pro	Asn	Gln	Pro	Tyr	Arg	Trp	Leu	Ser	Tyr	Lys	Gln	Val	Ser
			100				105						110		
Asp	Arg	Ala	Glu	Tyr	Leu	Gly	Ser	Cys	Leu	Leu	His	Lys	Gly	Tyr	Lys
		115				120					125				
Ser	Ser	Pro	Asp	Gln	Phe	Val	Gly	Ile	Phe	Ala	Gln	Asn	Arg	Pro	Glu
		130			135					140					
Trp	Ile	Ile	Ser	Glu	Leu	Ala	Cys	Tyr	Thr	Tyr	Ser	Met	Val	Ala	Val
145				150					155					160	
Pro	Leu	Tyr	Asp	Thr	Leu	Gly	Pro	Glu	Ala	Ile	Val	His	Ile	Val	Asn

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165          170          175
Lys Ala Asp Ile Ala Met Val Ile Cys Asp Thr Pro Gln Lys Ala Leu
180          185          190
Val Leu Ile Gly Asn Val Glu Lys Gly Phe Thr Pro Ser Leu Lys Val
195          200          205
Ile Ile Leu Met Asp Pro Phe Asp Asp Leu Lys Gln Arg Gly Glu
210          215          220
Lys Ser Gly Ile Glu Ile Leu Ser Leu Tyr Asp Ala Glu Asn Leu Asp
225          230          235
Lys Glu His Phe Arg Lys Pro Val Pro Pro Ser Pro Glu Asp Leu Ser
245          250          255
Val Ile Cys Phe Thr Ser Gly Thr Thr Gly Asp Pro Lys Gly Ala Met
260          265          270
Ile Thr His Gln Asn Ile Val Ser Asn Ala Ala Ala Phe Leu Lys Cys
275          280          285
Val Glu His Ala Tyr Glu Pro Thr Pro Asp Asp Val Ala Ile Ser Tyr
290          295          300
Leu Pro Leu Ala His Met Phe Glu Arg Ile Val Gln Ala Val Val Tyr
305          310          315
Ser Cys Gly Ala Arg Val Gly Phe Phe Gln Gly Asp Ile Arg Leu Leu
320          325          330
Ala Asp Asp Met Lys Thr Leu Lys Pro Thr Leu Phe Pro Ala Val Pro
335          340          345
Arg Leu Leu Asn Arg Ile Tyr Asp Lys Val Gln Asn Glu Ala Lys Thr
350          355          360
Pro Leu Lys Lys Phe Leu Leu Lys Leu Ala Val Ser Ser Lys Phe Lys
365          370          375
Glu Leu Gln Lys Gly Ile Ile Arg His Asp Ser Phe Trp Asp Lys Leu
380          385          390
Ile Phe Ala Lys Ile Gln Asp Ser Leu Gly Gly Arg Val Arg Val Ile
395          400          405
Val Thr Gly Ala Ala Pro Ile Ser Thr Pro Val Leu Thr Phe Phe Arg
410          415          420
Ala Ala Met Gly Cys Trp Val Phe Glu Ala Tyr Gly Gln Thr Glu Cys
425          430          435
Thr Gly Gly Cys Thr Phe Thr Leu Pro Gly Asp Trp Thr Ser Gly His
440          445          450
Val Gly Val Pro Leu Ala Cys Asn Tyr Val Lys Leu Glu Asp Val Ala
455          460          465
Asp Met Asn Tyr Phe Thr Val Asn Asn Glu Gly Glu Val Cys Ile Lys
470          475          480
Gly Thr Asn Val Phe Lys Gly Tyr Leu Lys Asp Pro Glu Lys Thr Gln
485          490          495
Glu Ala Leu Asp Ser Asp Gly Trp Leu His Thr Gly Asp Ile Gly Arg
500          505          510
Trp Leu Pro Asn Gly Thr Leu Lys Ile Ile Asp Arg Lys Lys Asn Ile
515          520          525
Phe Lys Leu Ala Gln Gly Glu Tyr Ile Ala Pro Glu Lys Ile Glu Asn
530          535          540
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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 3934

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Ser	Ser	Ser	Asn	Lys	Ser	Pro	Ser	Ser	Ala	Trp	Ser	Ser	Ser	Ser	Trp
		50				55				60					
His	Gly	Arg	Ile	Lys	Gly	Gly	Met	Lys	Gly	Phe	Gln	Ser	Phe	Met	Val
65				70					75					80	
Ser	Asp	Ser	Asn	Met	Ser	Phe	Val	Glu	Phe	Val	Glu	Leu	Phe	Lys	Ser
			85					90						95	
Phe	Ser	Val	Arg	Ser	Arg	Lys	Asp	Leu	Lys	Asp	Leu	Phe	Asp	Xaa	Leu

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      100              105              110
Cys Ser Ala Leu Gln Pro Xaa Leu Ala Pro Ser Gln Pro His Ser Thr
      115              120              125
Pro Thr
      130

<210> 3935
<211> 1103
<212> DNA
<213> Homo sapiens

<400> 3935
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120
aggacacagc agcggccacc atggccacgc ctgggtctcca gcagcatcag cagccccag
180
gaccggggag gcacaggtgg cccccaccac cggaggagag agctcctgcc cctgtccggg
240
ggatgactga ttctcctccg ccaggccacc cagaggagaa ggccaccccg cctggaggga
300
caggccatga ggggctctca ggaggtgctg ctgatgtggc ttctggtgtt ggcagtgggc
360
ggcacagagc acgcctaccg gcccgcccg aggggtgtgt ctgtccgggc tcacggggac
420
cctgtctccg agtcgttcgt gcagcgtgtg taccagccct tcctcaccac ctgcgacggg
480
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540
ctggcccctg ccaggcctcg ctacgcgtgc tgccccggct ggaagaggac cagcgggctt
600
cctggggcct gtggagcagc aatatgccag ccgccatgcc ggaacggagg gagctgtgtc
660
cagcctggcc gctgccgtg ccctgcagga tggcgggggtg aacttgcca gtcagatgtg
720
gatgaatgca gtgctaggag gggcggctgt cccagcgct gcgtcaacac cgccggcagt
780
tactgggtgc agtgttgga ggggcacagc ctgtctcgag acggtacact ctgtgtgccc
840
aaggaggggc ccccgagggt gggccccaac ccgacaggt aacagccctg gctgtgcctg
900
gcctggggag cggggcaggc agtggacatt gccgtgtggc tgttaggcat ggtggggggc
960
actggaatct gggcggaagg cggtggggac tccctctcca gggagggagg atggggaggg
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aggcagaagt gccccgtccc ggg
1103

<210> 3936
<211> 265
<212> PRT

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<213> Homo sapiens

<400> 3936

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Met Arg Gly Ser Gln Glu Val Leu Leu Met Trp Leu Leu Val Leu Ala
 1           5           10           15
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 20           25           30
Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val
 35           40           45
Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr
 50           55           60
Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
 65           70           75           80
Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
 85           90           95
Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
100           105           110
Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
115           120           125
Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
130           135           140
Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
145           150           155           160
Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
165           170           175
Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
180           185           190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
195           200           205
Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
210           215           220
Gly Gly Gly Asp Ser Leu Ser Arg Glu Gly Gly Trp Gly Gly Arg Ile
225           230           235           240
Gly Gly Phe Pro Arg Thr Gly Gly Arg Leu Pro Gly Ala Ser Tyr Gln
245           250           255
Pro Arg Arg Gln Lys Cys Pro Val Pro
260           265

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<210> 3937

<211> 744

<212> DNA

<213> Homo sapiens

<400> 3937

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tccggactct ccgctggggc caccgaaggag aaaggctgcc tcggattcct gcgcccgaagc
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120
ttcgccgccca accatccagt tcttcctcca ggccacgttc tccttgcgga aaatgctgat
180
ctcagtcgca atgctggggc caggggctgg cgtgggctac gcgctcctcg ttatcgtgac
240
ccggggagag cggcggaagc aggaaatgct aaaggagatg ccactgcagg acccaaggag
300

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cagggaggag gcggccagga cccagcagct attgctggcc actctgcagg aggcagcgac
 360
 caccgaggag aacgtggcct gngaggaaga actggatggt tggcggcgaa ggcggcgcca
 420
 gcggggagtc accgtgagac cggacttgcc tccgtggcgc cgggaccttg gcttggggcg
 480
 aggaatccga ggcagccttt ctcttcctgt ggcccagcgg agagtccgga ccgagatacc
 540
 atgcaggagc tctccggggg cctgtgagct gccgtcgggt gagcagcttt cccccaacc
 600
 ctggactgac tgccttaagg tccgcaaggc gggccagggc cgagacgcga gtcggatgtg
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 720
 acctaccaat gcttagagac gcgt
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<210> 3938

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3938

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Gly	His	Val	Leu	Leu	Ala	Glu	Asn	Ala	Asp	Leu	Ser	Arg	Asn	Ala	Gly
			20					25					30		
Arg	Arg	Gly	Trp	Arg	Gly	Leu	Arg	Ala	Pro	Arg	Tyr	Arg	Asp	Pro	Gly
		35					40					45			
Arg	Ala	Ala	Glu	Ala	Gly	Asn	Ala	Lys	Gly	Asp	Ala	Thr	Ala	Gly	Pro
		50				55				60					
Lys	Glu	Gln	Gly	Gly	Gly	Gly	Gln	Asp	Pro	Ala	Ala	Ile	Ala	Gly	His
65					70					75				80	
Ser	Ala	Gly	Gly	Ser	Asp	His	Ala	Gly	Glu	Arg	Gly	Leu	Xaa	Gly	Arg
				85					90					95	
Thr	Gly	Trp	Leu	Ala	Ala	Lys	Ala	Ala	Pro	Ala	Gly	Gly	His	Arg	Glu
			100					105					110		
Thr	Gly	Leu	Ala	Ser	Val	Gly	Ala	Gly	Pro	Trp	Leu	Gly	Arg	Arg	Asn
		115					120					125			
Pro	Arg	Gln	Pro	Phe	Ser	Phe	Val	Gly	Pro	Ala	Glu	Ser	Pro	Asp	Arg
		130				135					140				
Asp	Thr	Met	Pro	Gly	Leu	Ser	Gly	Val	Leu						
145					150										

<210> 3939

<211> 490

<212> DNA

<213> Homo sapiens

<400> 3939

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 120

ctgaagactg tgaagaaaag ggcaacagac agcgaggag gaagagacag gctggagccc
 180
 ttcttgtaaa cgcaggtgac ctggtgcacg gctgatgggt gttaaatcgg aactccaggt
 240
 gataaccact gtctcctgga gcctgtgggt cggcctcctg ctctgctgca agggccctgc
 300
 tggctggcgg gggggcggtcc cggagcctcg acccttcacg ttttactcc gtttctgttc
 360
 taaggaaacc acgggtcgga ggtgtcagga ggaaggtagc agcgtcttga ctttccaccg
 420
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 480
 cctcacgcgt
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<210> 3940

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3940

Xaa	Cys	Asn	Val	Arg	Gly	Arg	Ser	Arg	Asp	Ser	Gly	Lys	Glu	Arg	Gln
1				5				10					15		
Thr	Asp	Arg	Gln	Thr	Gly	Lys	Val	Arg	Trp	Lys	His	Thr	Glu	Asp	Glu
			20					25					30		
Arg	Asp	Arg	Gln	Trp	Glu	Ala	Glu	Leu	Lys	Thr	Val	Lys	Glu	Arg	Ala
		35				40						45			
Thr	Asp	Ser	Glu	Gly	Gly	Arg	Asp	Arg	Leu	Glu	Pro	Phe	Leu		
	50					55					60				

<210> 3941

<211> 2077

<212> DNA

<213> Homo sapiens

<400> 3941

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 120
 aggtggggccc tgcctgttgg cactgatgt gggaacctga ggtcacatca gtctgtggac
 180
 tctgtgggta ggtgaccctt gtgccttgag gtctgctgga cacctgggca tgggatccag
 240
 tagtctgag ctactcttt tggccatctc cagctgtctc taggggacgt ggctcaggcc
 300
 cgctcctggg gcaggggggt ggcggtggca tgagtggggt tggggaggag gacgtgtctc
 360
 cacattgcag ctggcttcct cctgggctga acctccttgt gctttgagac tgacaggaag
 420
 agcagagttg cttcaggtag aggcctcgcc caggcccttg gggcaggata acagcagaga
 480
 actcaggtgc ctctggcac agacaggagg acagatggca caggtgagca tccacacact
 540

ccattgccac aggggggatg gcatggccca tgaccatca aagcttcag gtcgggatac
600
aggagagggc ctcaagaag ggggaccaag ccctaggccc catacttccc agaaggagcc
660
ccaggcctgc aggggcatct gaaaggatgg agtcctggcc cagctgggcc tcaggggaca
720
gggagtcctc ctcaagagag gctgcggctg acaaggggct ggagcccaca aggagggctgt
780
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840
ccagcttctg tgtcaggtag aggtgggaca gacatgtctt cagctaaccg cactccgct
900
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960
tggcatatgt gtcataactg ttgtctgaac atacggagag cacatcggag acctctacac
1020
catcgctgat ctctgagaaa ataagcttct ccttcctgat gctgacgtcc cggctggctcc
1080
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1260
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1380
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1560
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1620
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1680
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1740
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1800
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1860
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1920
aggtgtcccc ccagcgtcca ggtgcctgcc ctgccctggg ctctccagg agaggggtgg
1980
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2040
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2077

<211> 89
 <212> PRT
 <213> Homo sapiens

<400> 3942
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 1 5 10 15
 Gly Trp Ser Pro Gly Pro Ala Gly Pro Gln Gly Thr Gly Ser Pro Pro
 20 25 30
 Gln Glu Arg Leu Arg Leu Thr Arg Gly Trp Ser Pro Gln Gly Gly Cys
 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
 50 55 60
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Thr Asp Met
 65 70 75 80
 Ser Ser Ala Asn Ala His Ser Ala Leu
 85

<210> 3943
 <211> 1524
 <212> DNA
 <213> Homo sapiens

<400> 3943
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 120
 ggggaaccgc agccgcagga caggagcagc gcggaggagg aggaggagga ggatgagctg
 180
 gtggggctag cggactacgg agacgggccc gactcctccg acgccgatcc ggacagcggc
 240
 acagaggagg gagttctgga cttcagtgc cccttcagca ctgaagtga gccgagaatc
 300
 ctgctcatgg gcctgaggag aagcggcaag tcgtctatcc agaaagtgtg ctttcacaaa
 360
 atgtctccca acgaaactct gttcttgagg agcactaata agatatgccg ggaagatggt
 420
 tccaacagct cctttgtcaa ttttcagatt tgggacttcc caggacagat tgactttttt
 480
 gaccctacat ttgactatga gatgatcttc cggggaacag gagcattgat atttgtcatt
 540
 gacgcacagg atgactacat ggaggcttta acaagacttc acattactgt ttctaaagcc
 600
 tacaaaagta acccagacat gaattttgag gtttttatcc ataaagtga tggctctgct
 660
 gatgatcaca aaatagaaac acagagggac attcatcaaa gggccaatga tgaccttgca
 720
 gatgctggat tagaaaaaat tcacctcagc ttttatctga caagcatata tgatcattca
 780
 atatttgaag ctttttagcaa agttgttcag aaactgattc cacaactccc aactctggag
 840
 aattgctga acatctttat ctcaaattct ggaattgaaa aggcatttct atttgatgtg
 900

gtcagtaaaa tttatattgc aactgatagt actccgggtg atatgcaaac ctatgagctc
 960
 tgctgtgata tgatagatgt ggttattgac atctcttgta tttatggctc caaagaagat
 1020
 ggagcaggaa cccctatga caaggaatcc acagccatca taaagcttaa taatacaacc
 1080
 gtgctttatt taaagaggt gacaaagttc ctggctctcg tttgctttgt cagagaggaa
 1140
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 1200
 gaagtttttg aggtgagaat gaaagtagta aaatctcgaa aggttcagaa tcggctgcag
 1260
 aagaaaaaga gagccacccc taatgggacc cctagagtgc tgctgtaggt gaggtttcag
 1320
 gaatgtcttt tgaatcaga ccttatccat gaggctgctg cgccatgttg cactaaagga
 1380
 agaggaagaa ggagattggg acacatacca ttgatttggt gttaaaaaaa aaaaattcct
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 1500
 aaaaaaaaaa aaaaaaaaaa aaaa
 1524

<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

Ser	Arg	Gln	Lys	Ser	Ala	Ser	Glu	Ile	Gly	Cys	Gly	Arg	Pro	Ala	Arg
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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala	
			20				25					30			
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
			35				40				45				
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala
			50			55					60				
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
			65			70				75				80	
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
			85						90					95	
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
			100					105					110		
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
			115				120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
			130			135					140				
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
			145			150				155				160	
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
			165					170					175		
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
			180					185					190		
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

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      195              200              205
Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys
 210              215              220
Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala
 225              230              235
Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile
      245              250              255
Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu
      260              265              270
Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser
      275              280              285
Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile
      290              295              300
Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu
      305              310              315
Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly
      325              330              335
Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala
      340              345              350
Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys Glu Val Thr
      355              360              365
Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser Phe Glu Arg
      370              375              380
Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys Ala Ile His
      385              390              395
Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg Lys Val Gln
      405              410              415
Asn Arg Leu Gln Lys Lys Lys Arg Ala Thr Pro Asn Gly Thr Pro Arg
      420              425              430
Val Leu Leu
      435

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<210> 3945

<211> 696

<212> DNA

<213> Homo sapiens

<400> 3945

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120
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180
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240
ggcggaccgg gaggtgtgct gcttcatcac caaaatcctg tgcgcccacg ggggcccgcg
300
ggccctggag gcgctgctcc aggagatcgc gctgtctgag ccgcagctct gtgaggtgct
360
gcaggtggcc gggcccgaac gctttgtggt gttggagacc ggcggcgagg ccgggatcac
420
ccgatcggtg gtggccacca ctcgagcccg ggtctgccgt cgcaagtact gccagagacc
480

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ctgcgataac ctgcatctct gcaaaactcaa cttgctgggc cgggtgcaact attcgcagtc
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 600
 gaaaaatcac gaactctctg gactgaacaa agaggaatta gcagtgctcc tctccaaaag
 660
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 696

<210> 3946
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 3946
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 Gly Ser Ser Gly Gly His His Arg Ser Gly Asp Pro Gly Leu Ala Ala
 20 25 30
 Gly Leu Gln His His Lys Ala Val Gly Pro Gly His Leu Gln His Leu
 35 40 45
 Thr Glu Leu Arg Leu Arg Gln Arg Asp Leu Leu Glu Gln Arg Val Gln
 50 55 60
 Gly His Ala Ala Pro Val Gly Ala Gln Asp Phe Gly Asp Glu Ala Ala
 65 70 75 80
 His Leu Arg Val Arg His Gly Ala Leu Ala Val Leu Ala Leu Pro Arg
 85 90 95
 Arg Gly Thr Arg Phe Arg Gly Asn Arg Lys Ser Lys Leu Thr Ser Val
 100 105 110
 Gln Gly Arg Ala Arg Ala Val Leu Leu Leu Gly Ala Pro Gly Val Ser
 115 120 125
 Glu Gly Ala Leu Ser Val Ala Val Ser Pro Ala Gln Arg Ser Thr Leu
 130 135 140
 Gly Ser Gln Val Lys Arg Leu Asp Leu Thr Asp Arg Val Leu Val Ala
 145 150 155 160
 Gly Leu Gln Pro Ala
 165

<210> 3947
 <211> 400
 <212> DNA
 <213> Homo sapiens

<400> 3947
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 120
 ctgcagggca tcatcgacga cttgggtggtg ctgacagcag aaccccccaa actgcctccc
 180
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctggtc ctaccagacc
 240
 ccacccctcat caccagcag ctccagctcc cggaagtcca gcattgtcag tgccccagc
 300

agcagtagca gtgccaaggg tggcggaagc cccatggcct gggggtgcc aaacatactc
 360
 acccagttcc acctgtcgct accgcagcct ggcgcagcca
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<210> 3948

<211> 133

<212> PRT

<213> Homo sapiens

<400> 3948

Xaa Glu Lys Gln Ala Ile Leu Leu Ala Leu Ile Glu Glu Arg Gly Arg
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 20 25 30
 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ala Lys Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
 130

<210> 3949

<211> 1462

<212> DNA

<213> Homo sapiens

<400> 3949

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<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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		20						25					30		
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
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Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
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Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
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Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
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Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
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Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

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Glu	Lys	Asp	Cys	Pro	Gly	Val	Leu	Trp	Ile	Phe	Leu	Asp	Tyr	Phe	Gln														
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Thr	Ser	His	Leu	Gly	His	Ser	Gly	Leu	Pro	Pro	Leu	Ser	Asp	Gln	Tyr														
			165						170					175															
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			180					185					190																
Glu	Tyr	Leu	Gln	Lys	Glu	Met	Gln	Leu	Ile	Ile	Glu	Asn	Pro	Pro	Ile														
		195					200					205																	
Asn	Ile	Pro	Thr	Gly	Cys	Leu	Glu	Val	Phe	Pro	Glu	Ala	Glu	Trp	Ser														
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Gln	Gly	Val	Gln	Gly	Thr	Leu	Arg	Ile	Lys	Lys	Tyr	Leu	Thr	Val	Glu														
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Gln	Ile	Met	Thr	Cys	Val	Ala	Asp	Thr	Cys	Arg	Arg	Phe	Phe	Asp	Arg														
			245						250					255															
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			260					265					270																
Val	Glu	His	Tyr	Lys	Tyr	Glu	Leu	Leu	Lys	Ala	Met	Arg	Lys	Lys	Arg														
		275					280					285																	
Val	Val	Gln	Leu	Ser	Asp	Ala	Cys	Asp	Met	Leu	Gly	Asp	His	Ile	Val														
		290				295					300																		
Leu	Asp	Ser	Val	Arg	Arg	Phe	Ser	Gly	Leu	Glu	Arg	Ser	Ile	Val	Phe														
					310					315					320														
Gly	Ile	His	Pro	Arg	Thr	Ala	Asp	Pro	Ala	Ile	Leu	Pro	Asn	Ile	Leu														
				325				330						335															
Ile	Cys	Leu	Ala	Ser	Arg	Ala	Lys	Gln	His	Leu	Tyr	Ile	Phe	Leu															
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<210> 3951

<211> 1012

<212> DNA

<213> Homo sapiens

<400> 3951

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 180
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<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

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				20				25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35					40					45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
		50				55					60				
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65					70				75						80
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
				85				90						95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
			100				105						110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
		130				135					140				
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155					160
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
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Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
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<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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<210> 3954

<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

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Leu	Tyr	Pro	Phe	Phe	Gly	Val	Leu	Arg	Ser	Asn	Glu	Val	Ala	Ala	Glu				
65					70					75				80					
Tyr	Phe	Lys	Asn	Thr	Thr	Leu	Leu	Leu	Val	Gly	Val	Ile	Cys	Val	Ala				
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Ala	Ala	Val	Glu	Lys	Trp	Asn	Leu	His	Lys	Arg	Ile	Ala	Leu	Arg	Met				
			100					105					110						
Val	Leu	Met	Ala	Gly	Ala	Lys	Pro	Gly	Met	Leu	Leu	Leu	Cys	Phe	Met				
		115						120				125							
Cys	Cys	Thr	Thr	Leu	Leu	Ser	Met	Trp	Leu	Ser	Asn	Thr	Ser	Thr	Thr				
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Ala	Met	Val	Met	Pro	Ile	Val	Glu	Ala	Val	Leu	Gln	Glu	Leu	Val	Ser				
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				165					170					175					
Glu	Pro	Ile	Ser	Ser	Leu	Asp	Val	Lys	Asn	Ser	Gln	Pro	Ser	Leu	Glu				
			180						185					190					
Ile	Phe	Val	Asn	Glu	Asp	Arg	Ser	Ser	Asn	Ala	Asp	Leu	Thr	Thr	Leu				
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Thr	Ala	Asn	Gln	His	Gln	Gly	Lys	Lys	Gln	His	Pro	Ser	Gln	Glu	Lys				
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Tyr	Arg	Ser	His	His	Asp	Gln	Met	Ile	Cys	Lys	Cys	Leu	Ser	Leu	Ser				
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Ala	Glu	Val	Val	Asn	Phe	Gly	Thr	Trp	Phe	Leu	Phe	Ser	Phe	Pro	Ile				
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Thr	Lys	Arg	Glu	Gln	Leu	Ser	Glu	Lys	Arg	Ile	Gln	Glu	Glu	Tyr	Glu				
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Ile																			

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      485              490              495
Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu
      500              505              510
Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile
      515              520              525
Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
      530              535              540
Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
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Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His
      565              570              575
Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile
      580              585              590
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu
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<210> 3955

<211> 522

<212> DNA

<213> Homo sapiens

<400> 3955

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<210> 3956

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3956

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 35 40 45
 Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
 50 55 60
 Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
 65 70 75 80
 Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
 85 90 95
 Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
 100 105 110
 Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
 115 120 125
 Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
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<210> 3957

<211> 3891

<212> DNA

<213> Homo sapiens

<400> 3957

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<211> 440

<212> PRT

<213> Homo sapiens

<400> 3958

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Thr Glu Pro Ala Gln Ala Gln Lys Cys Tyr Arg Asp Leu Ala Leu Val
          35          40          45
Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
          50          55          60
Met Glu Lys Tyr Leu Lys Leu Gln Asp Thr Cys Arg Thr Gln Leu Val
          65          70          75          80
Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
          85          90          95
Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
          100          105          110
Lys Asn Ile Trp Leu Ala Glu Ser Val Leu Asp Ile Leu Thr Glu Gln
          115          120          125
Arg Glu Trp Val Leu Lys Ser Ser Ile Leu Ile Ala Met Ala Val Tyr
          130          135          140
Thr Tyr Leu Arg Leu Ile Val Asp His His Gly Thr Ala Gln Leu Gln
          145          150          155          160
Ala Leu Arg Gln Lys Glu Val Asp Phe Cys Ile Ser Leu Leu Arg Glu
          165          170          175
Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
          180          185          190
Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
          195          200          205
Ile His Asn Pro Gln Ala Leu Ser Pro Gln Phe Thr Gly Ile Leu Gln
          210          215          220
Leu Leu Gln Ser Arg Thr Ser Arg Lys Phe Leu Ala Cys Arg Leu Thr
          225          230          235          240
Pro Asp Met Glu Thr Lys Leu Leu Phe Met Thr Ser Arg Val Arg Phe
          245          250          255
Gly Gln Gln Lys Arg Tyr Gln Asp Trp Phe Gln Arg Gln Tyr Leu Ser
          260          265          270
Thr Pro Asp Ser Gln Ser Leu Arg Cys Asp Leu Ile Arg Tyr Ile Cys
          275          280          285
Gly Val Val His Pro Ser Asn Glu Val Leu Ser Ser Asp Ile Leu Pro
          290          295          300
Arg Trp Ala Ile Ile Gly Trp Leu Leu Thr Thr Cys Thr Ser Asn Val
          305          310          315          320
Ala Ala Ser Asn Ala Lys Leu Ala Leu Phe Tyr Asp Trp Leu Phe Phe
          325          330          335
Ser Pro Asp Lys Asp Ser Ile Met Asn Ile Glu Pro Ala Ile Leu Val
          340          345          350
Met His His Ser Met Lys Pro His Pro Ala Ile Thr Ala Thr Leu Leu
          355          360          365
Asp Phe Met Cys Arg Ile Ile Pro Asn Phe Tyr Pro Pro Leu Glu Gly
          370          375          380
His Val Arg Gln Gly Val Phe Ser Ser Leu Asn His Ile Val Glu Lys

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385          390          395          400
Arg Val Leu Ala Cys Lys Lys Tyr Trp Leu Tyr Leu Arg Leu Leu Gly
          405          410          415
Ile Cys Leu Leu Xaa Leu Leu Glu Glu Phe Leu Ser Cys His Arg Ile
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Thr Lys Thr Pro Ser Ser Pro Val
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<210> 3959

<211> 752

<212> DNA

<213> Homo sapiens

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<400> 3959
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120
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660
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<210> 3960

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3960

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Gly Pro Asn Ser Pro Leu Asp Phe Leu Phe Ser Phe Gln Asn Ala Val
          20          25          30
Ser Lys Tyr Gly Ser Gln Phe Gln Gly Asn Ser Gln His Asp Ala Leu
          35          40          45
Glu Phe Leu Leu Trp Leu Leu Asp Arg Val His Glu Asp Leu Glu Gly

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50	55	60
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	85	90

<210> 3961
 <211> 2505
 <212> DNA
 <213> Homo sapiens

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 120
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 360
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<210> 3962

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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 20 25 30
 Thr Val Met Tyr Ile Cys His Pro Glu Ser Lys His Glu Ile Leu Ser

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      35              40              45
Val Ala Glu Val Thr Thr Cys Glu Tyr Glu Val Val Ile Leu Thr Pro
  50              55              60
Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
  65              70              75
Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
      85              90              95
Leu Arg Gln Leu Glu Gln Gln Glu Ile Leu Arg Val Pro Phe Arg
      100              105              110
Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
      115              120              125
Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
      130              135              140
Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
      145              150              155
Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
      165              170              175
Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
      180              185              190
Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
      195              200              205
His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
      210              215              220
Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
      225              230              235
Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
      245              250              255
Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
      260              265              270
Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
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Ile Cys Lys Ile Leu Asp Thr Ala Asp Glu Asn Gly Leu Leu Ser Leu
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Pro Asn
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<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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  360

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<210> 3964

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

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			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
		35					40				45				
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg

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Met Glu Ile Asp Lys His	Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr				
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Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser					
	85	90	95		
Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe					
	100	105	110		
Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro					
	115	120	125		
Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro					
	130	135	140		
Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala					
	145	150	155	160	
Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala					
	165	170	175		
Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln					
	180	185	190		
Leu Gln Arg Leu Leu Ala Gln Gln Arg Ala Gln Ser Gln Arg Ser					
	195	200	205		
Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu					
	210	215	220		
Ser Val Gln Gln Gln Met Met Gln Gln Ser Arg Gln Leu Asp Pro Asn					
	225	230	235	240	
Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Pro Leu His					
	245	250	255		
Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr					
	260	265	270		
Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe					
	275	280	285		
Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser					
	290	295	300		
Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser					
	305	310	315	320	
Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala					
	325	330	335		
Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp					
	340	345	350		
Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly					
	355	360	365		
Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn					
	370	375	380		
Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn					
	385	390	395	400	
Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn					
	405	410	415		
Asn Leu Pro Ile Asn Thr Val Arg Glu Val Asp His Leu Arg Asp Arg					
	420	425	430		
Asn Ser Gly Thr					
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<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

<400> 3965
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1560

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<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

Met Gly Pro Pro Leu Ala Pro Arg Pro Ala His Val Pro Gly Glu Ala

1

5

10

15

Gly Pro Arg Arg Thr Arg Glu Ser Arg Pro Gly Ala Val Ser Phe Ala

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Asp Val Ala Val Tyr Phe Ser Pro Glu Glu Trp Glu Cys Leu Arg Pro
      35              40              45
Ala Gln Arg Ala Leu Tyr Arg Asp Val Met Arg Glu Thr Phe Gly His
      50              55              60
Leu Gly Ala Leu Gly Glu Ala Gly Pro Ser Gly Arg Asp Pro Gln Ser
      65              70              75              80
Val Gly Phe Ser Val Pro Lys Pro Ala Phe Ile Ser Trp Val Glu Gly
      85              90              95
Glu Val Glu Ala Trp Ser Pro Glu Ala Gln Asp Pro Asp Gly Glu Ser
      100              105              110
Ser Ala Ala Phe Ser Arg Gly Gln Gly Gln Glu Ala Gly Ser Arg Asp
      115              120              125
Gly Asn Glu Glu Lys Glu Arg Leu Lys Lys Cys Pro Lys Gln Lys Glu
      130              135              140
Val Ala His Glu Val Ala Val Lys Glu Trp Trp Pro Ser Val Ala Cys
      145              150              155              160
Pro Glu Phe Cys Asn Pro Arg Gln Ser Pro Met Asn Pro Trp Leu Lys
      165              170              175
Asp Thr Leu Thr Arg Arg Leu Pro His Ser Cys Pro Asp Cys Gly Arg
      180              185              190
Asn Phe Ser Tyr Pro Ser Leu Leu Ala Ser His Gln Arg Val His Ser
      195              200              205
Gly Glu Arg Pro Phe Ser Cys Gly Gln Cys Gln Ala Arg Phe Ser Gln
      210              215              220
Arg Arg Tyr Leu Leu Gln His Gln Phe Ile His Thr Gly Glu Lys Pro
      225              230              235              240
Tyr Pro Cys Pro Asp Cys Gly Arg Arg Phe Arg Gln Arg Gly Ser Leu
      245              250              255
Ala Ile His Arg Arg Ala His Thr Gly Glu Lys Pro Tyr Ala Cys Ser
      260              265              270
Asp Cys Lys Ser Arg Phe Thr Tyr Pro Tyr Leu Leu Ala Ile His Gln
      275              280              285
Arg Lys His Thr Gly Glu Lys Pro Tyr Ser Cys Pro Asp Cys Ser Leu
      290              295              300
Arg Phe Ala Tyr Thr Ser Leu Leu Ala Ile His Arg Arg Ile His Thr
      305              310              315              320
Gly Glu Lys Pro Tyr Pro Cys Pro Asp Cys Gly Arg Arg Phe Thr Tyr
      325              330              335
Ser Ser Leu Leu Ser His Arg Arg Ile His Ser Asp Ser Arg Pro
      340              345              350
Phe Pro Cys Val Glu Cys Gly Lys Gly Phe Lys Arg Lys Thr Ala Leu
      355              360              365
Glu Ala His Arg Trp Ile His Arg Ser Cys Ser Glu Arg Arg Ala Trp
      370              375              380
Gln Gln Ala Val Val Gly Arg Ser Glu Pro Ile Pro Val Leu Gly Gly
      385              390              395              400
Lys Asp Pro Pro Val His Phe Arg His Phe Pro Asp Ile Phe Gln Glu
      405              410              415
Phe Cys Gln Gln Arg Leu Gln Asp Arg Gly Val Pro Ser Asn Ala Pro
      420              425              430
Pro Val Pro Gly Gln Ser Pro Arg Ser Phe Phe Arg Asp Arg Gln
      435              440              445
Ser Ser Ala Val Ala Tyr Cys Gly His Arg Gly Val Ser Glu Ala Ser

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      450              455              460
Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro
465              470              475              480
Asp Thr Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe
      485              490              495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Ala Ala
      500              505              510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys
      515              520              525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu
      530              535              540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val
      545              550              555              560
Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro
      565              570              575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser
      580              585              590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg
      595              600              605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro
      610              615              620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val
      625              630              635              640
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg
      645              650              655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln
      660              665              670
Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg
      675              680              685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu
      690              695              700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro
      705              710              715              720
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln
      725              730              735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly
      740              745              750
Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro
      755              760              765
Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly
      770              775              780

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<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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atctctgcccc gtggcccgcc cgtctcgtta ggggacaccc tgggtgttttaa ggaatggccag
120
tactggatcc gagccggac ctcaaggac atcatcaaga ctggaggcta caaggtcagc
180

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gccctggagg tggagtggca cctgctggcc caccacagca tcacagatgt ggctgtgatt
 240
 ggagttccgg atatgacatg gggccagcgg gtcactgctg tggtagacct ccgagaagga
 300
 cactcactgt cccacaggga gtcacaagag tgggcccaga atgtcctggc cccgtacggg
 360
 gtgcccctcg agctggtgct ggtggaggag atcccgcgga accagatggg caagattgac
 420
 aagaaggcgc tcacacaggga cttccacccc tcacagcccg gcagactggg actgcgggtc
 480
 tgggtggggag cagcagacgt ccccttcaca ccgagaacca cgggggcccg tccaagacct
 540
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 tgaaatcacc atgtgggggc cccagcctcg ggccagttgt tgcagctcaa ggagaccgtc
 660
 cctggtgtca cctctgcctg gtcacgcgcg acctcatctg tgcagcgcgg tgcagccagg
 720
 cccctggcccc acgtgctgag gcacctcccg cccacacagt cctgcagtt gccaggctct
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 892

<210> 3968

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

Xaa Pro Ala Arg Pro Arg Arg Ala Arg Gly Gly Gly Arg Gly Arg Val
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 Val Ala Arg Gln Ile Leu Pro Arg Gly Arg Gly Arg Leu Val Gly Asp
 20 25 30
 Thr Val Val Phe Lys Asp Gly Gln Tyr Trp Ile Arg Gly Arg Thr Ser
 35 40 45
 Val Asp Ile Ile Lys Thr Gly Gly Tyr Lys Val Ser Ala Leu Glu Val
 50 55 60
 Glu Trp His Leu Leu Ala His Pro Ser Ile Thr Asp Val Ala Val Ile
 65 70 75 80
 Gly Val Pro Asp Met Thr Trp Gly Gln Arg Val Thr Ala Val Val Thr
 85 90 95
 Leu Arg Glu Gly His Ser Leu Ser His Arg Glu Leu Lys Glu Trp Ala
 100 105 110
 Arg Asn Val Leu Ala Pro Tyr Ala Val Pro Ser Glu Leu Val Leu Val
 115 120 125
 Glu Glu Ile Pro Arg Asn Gln Met Gly Lys Ile Asp Lys Lys Ala Leu
 130 135 140
 Ile Arg His Phe His Pro Ser
 145 150

<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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120
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180
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240
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360
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480
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540
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660
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720
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780
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915

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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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Met Gly Glu Val Glu Ala Pro Gly Arg Leu Trp Leu Glu Ser Pro Pro
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Gly Gly Ala Pro Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val
20      25      30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35      40      45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50      55      60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65      70      75      80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 3971
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 120
 ctggggaacg ggtaatcaga gaaacctca ctcatagggt ggtgcccttt atgcagagac
 180
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 240
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 300
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 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
 Met Ser Tyr His Phe Pro Cys Glu Pro Asp Pro Ile Ser Cys Leu Ser
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 20 25 30
 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu
 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
 85 90 95
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
 100 105 110
 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 tgctccacac acttgacgtc agatatattac agggccctcg agatcatcct tgggtttacca
 180
 ttttgtgagg caattgacat gtgggtccctg ggctgtgtta ttgcagaatt gttcctgggt
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 tggccggttat atccaggagc ttcgaggtat gatcagattc ggtatatattc acaaacacag
 300
 gggtttgcctg ctgaatatattt attaagcgcc gggacaaaaga caactagggtt tttcaaccgt
 360
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 420
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 660
 agcacacacg tcaaatcatg tttccagaac atggagatct gcaagcgtcg ggtgaatatg
 720
 tatgacacgg tgaaccagag caaaaccctt ttcacacgc acgtggcccc cagcacgtcc
 780
 accaacctga ccatgacctt taacaaccag ctgaccactg tccacaacca gccctcagcg
 840
 gcatccatgg ctgcagcggc ccagcggagc atgccctgc agacaggaac agcccagatt
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 960
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 984

<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

Leu Gly Leu Ile His Ala Asp Leu Lys Pro Glu Asn Ile Met Leu Val
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 20 25 30
 Ala Ser His Val Ser Lys Ala Val Cys Ser Thr Tyr Leu Gln Ser Arg
 35 40 45
 Tyr Tyr Arg Ala Pro Glu Ile Ile Leu Gly Leu Pro Phe Cys Glu Ala
 50 55 60
 Ile Asp Met Trp Ser Leu Gly Cys Val Ile Ala Glu Leu Phe Leu Gly
 65 70 75 80
 Trp Pro Leu Tyr Pro Gly Ala Ser Glu Tyr Asp Gln Ile Arg Tyr Ile
 85 90 95
 Ser Gln Thr Gln Gly Leu Pro Ala Glu Tyr Leu Leu Ser Ala Gly Thr

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      100              105              110
Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu
      115              120              125
Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys
      130              135              140
Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala
      145              150              155              160
Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu
      165              170              175
Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr
      180              185              190
Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro
      195              200              205
Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val
      210              215              220
Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met
      225              230              235              240
Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala
      245              250              255
Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr
      260              265              270
Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Gln
      275              280              285
Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro
      290              295              300
Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala
      305              310              315              320
Leu Gln Ala Ser Pro Phe Thr Arg
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<210> 3975

<211> 593

<212> DNA

<213> Homo sapiens

<400> 3975

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120
gctcttgggg getcaaggga gctggggcct ctgccagcct gcaagctgcc tccaactctc
180
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240
tgcttctgag gcgtctcgga atcataggcc tccctggaa ggggagcagc aggcgaggtc
300
tgcgtagacc ccacagatgc gcgctcgct gccagactta aaagtctgtg cccctccccg
360
accaccaggg taccagatc ccaggcggtc cagccaggcc cacagcccca agagctggggc
420
tggtctctcc aactgggata tggggtaggg gctgctcccc caagtccctg ggggactgtc
480
tgggacatcc aggcctgtc ttctgtctt aacctcac aacagagaac acgatgttct
540

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593

<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

Met	Gly	Phe	Ser	Leu	Leu	Glu	Gly	Pro	Ala	Ser	Leu	Gln	Pro	Pro	His
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Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
		50				55				60					
His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65				70						75				80	
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
				85					90					95	
Leu	Ala	Cys	Gln	Thr											
			100												

<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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120
ttgtctcggt ggggtgattc ggcacaaacc gcccgaccca ggggcgggtg cgcgtgtgga
180
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300
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360
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420
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ccatctcaac agggccaagg tgggttacat ggaatctacc tgcgggcctt ctgcacaggg
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660
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720

atcctggaaa cagtcacaa acacagctgt ggggggttgc ctctgttcg aagtgcactg
780
gaaaaaatcc tggccgtttg tcatggggtc atgtataaac agctctcagc ctggatgctc
840
catggactcc tcttgaccaa gcatgaagaa ttctttatca aacagggggc atcttctggt
900
aatgtcagtg cccagccaga agaggacgag gaggatctgg gcattggggg actgacagga
960
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1020
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1080
gctgaaaaaa tcctatttgt tggagaatct gtccagatgt ttgagaatca aaatgtgaac
1140
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1200
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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Gly His Met Glu Ala Val Asn Leu Leu Ser Ser Asn Lys Tyr Thr Glu
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Lys Gln Ile Gly Tyr Leu Phe Ile Ser Val Leu Val Asn Ser Asn Ser
 85          90          95
Glu Leu Ile Arg Leu Ile Asn Asn Ala Ile Lys Asn Asp Leu Ala Ser
100          105          110
Arg Asn Pro Thr Phe Met Gly Leu Ala Leu His Cys Ile Ala Ser Val
115          120          125
Gly Ser Arg Glu Met Ala Glu Ala Phe Ala Gly Glu Ile Pro Lys Val
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Leu Val Ala Gly Asp Thr Met Asp Ser Val Lys Gln Ser Ala Ala Leu
145          150          155          160
Cys Leu Leu Arg Leu Tyr Arg Thr Ser Pro Asp Leu Val Pro Met Gly
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Asp Trp Thr Ser Arg Val Val His Leu Leu Asn Asp Gln His Leu Gly
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Val Val Thr Ala Ala Thr Ser Leu Ile Thr Thr Leu Ala Gln Lys Asn
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Pro Glu Glu Phe Lys Thr Ser Val Ser Leu Ala Val Ser Arg Leu Ser
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Phe Val Pro Ala Pro Trp Leu Ser Val Lys Leu Leu Arg Leu Leu Gln
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Cys Tyr Pro Pro Pro Asp Pro Ala Val Arg Gly Arg Leu Thr Glu Cys
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Leu Ile Ile His His Asp Ser Glu Pro Asn Leu Leu Val Arg Ala Cys
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 835 840 845
 His Pro Met Asp Thr Glu Val Thr Lys Ala Lys Ile Ile Gly Phe Gly

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<212> DNA

<213> Homo sapiens

<400> 3983

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